

Albany

# AMERICAN RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, FINANCE,

INSURANCE, BANKING, MINING, MANUFACTURES.

HENRY V. POOR, *Editor.*

SATURDAY, JUNE 25, 1859.

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JOHN H. SCHULTZ & CO.

Front Room, Third Floor,

No. 9 Spruce Street.

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MESSRS. ALGAR & STREET, No. 11 Clements Lane, Lombard Street, LONDON, are the authorised European Agents for the Journal.

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## American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & CO. NO. 9 SPRUCE ST.

New York, Saturday, June 25, 1859.

### LaCrosse and Milwaukee Railroad.

Mr. Newcomb Cleveland, President of what remains of the old LaCrosse Company, has issued a presidential circular to the public generally, in which he gives the following analysis of the reports of the company for three consecutive years:

	1857	1858	March 25, 1859
Capital stock..	\$2,031,200	\$6,555,574	\$10,872,000
City Milwaukee	314,000	314,000	319,000
1st mort. E. div.	942,500	921,000	903,000
2d " " "	.....	1,000,000	1,000,000
Farm m. bonds.	913,500	1,108,400	inc. in stock
3d m. bonds....	.....	.....	2,000,000
Con. 5 year b'ds	107,000	107,000	107,000
Con. bonds....	35,800	210,000	210,000
1st m. l'd grants	.....	2,500,000	.....
2d " " "	.....	353,600	4,367,500
Const. of 1862.	.....	704,000	704,000
" " 1867.	.....	764,000	764,000
Interest scrip..	.....	33,566	33,566
Real est'te b'ds.	.....	6,000	6,000
S. Chamberlain's judgm't	.....	629,090	785,587
N. Cleveland's judgm't....	.....	114,000	136,000
Floating debt..	68,807	660,478	75,000
Total.....	\$4,412,607	15,980,708	22,282,653

Increase in 1858, \$11,568,101: increase in 1859, \$6,301,945. Total increase in two years, \$17,870,046.

### Chicago and Milwaukee Railroad.

The report of this company, embracing a period of fourteen months from November, 1, 1857, to Jan. 1, 1859, has just been received. The fiscal year of the company formerly terminated on the 30th November. For the purpose of comparison, therefore, the earnings for the 12 months to Nov. 31st, and for the succeeding two months, are given separately. They are as follows, viz:

	Passengers.	Freight.	Mails, etc.	Totals.
Nov ..	\$15,741.90	4,277.79	355.51	20,375.18
Dec ..	12,462.18	6,005.70	252.72	18,720.60
Jan ...	9,300.21	4,889.03	271.31	14,460.55
Feb ..	7,938.12	3,908.29	1,369.85	13,216.26
March ..	11,685.14	5,493.13	289.84	17,468.11
April ..	14,469.50	4,575.25	1,112.07	20,156.82
May ..	13,256.43	3,110.91	1,686.20	18,053.54
June ..	12,836.61	2,508.30	1,885.79	17,230.70
July ..	12,791.42	2,556.35	1,200.22	16,547.99
Aug ..	12,088.58	2,129.68	683.06	14,901.32
Sept ..	13,800.95	3,032.61	1,053.87	17,887.43
Oct. ..	14,709.04	5,226.16	565.01	20,500.21

12 mos	151,080.08	47,713.18	10,725.45	209,518.71
Nov ..	12,467.90	3,940.23	1,557.35	17,965.48
Dec ...	10,242.94	4,993.46	561.34	15,797.74

14 mos 173,790.92 56,546.87 12,844.14 243,281.93

The expenses for same time were:

To November 1, 1858.....	\$92,901 56
To January 1, 1859.....	15,096 29
	107,997 85

And the net earnings were:

To November 1, 1858.....	\$116,617 15
To January 1, 1859.....	18,666 93
	135,284 08

From which deduct:

Taxes for 1857-'58.....	\$11,867 16
Interest on 1st mort. bonds	35,805 00
" Income.....	8,157 80
" Real estate.....	3,575 00
" Divid'd cert'fcs	11,617 69
" Float'g debt incl'd'g disco't & exchange.	14,526 40
	85,549 05

Leaving the sum of..... \$49,735 03  
—which is more than five per cent. on the capital stock, and which might be considered available for dividends were it not in this instance applied

towards the payment of the floating debt, and to the retirement of income bonds and dividend certificates.

In reference to the financial condition of the company, the report says:

Within the last fourteen months, the company have purchased and cancelled 15 shares of the capital stock, and the Board have passed resolutions limiting the total of 1st mortgage bonds (\$512,000, which are convertible), and the capital stock (\$988,000), to one and one-half millions.

Anticipating the maturity of their dividend certificates (\$115,435 00) on the first of November last, and for the further purpose of paying off their floating debt, the company issued \$300,000 of real estate bonds, running 10 years from the first of February, 1858, secured by a deed of trust of a valuable outside property not required for the business of the road, consisting of water front lots and blocks in the city of Chicago, estimated at \$225,000; and by a second mortgage on the entire road, also by a provision requiring that the company shall purchase and retire these bonds at the rate of \$10,000 per annum. \$186,000 of these bonds had been sold on the first of January, and the proceeds with accrued interest, amounting to \$169,034 75, applied in payment of obligations.

Of the \$100,000 income bonds originally issued, only \$62,000 are now outstanding, \$18,000 of them having been purchased and cancelled the last year.

Dividend certificates to the amount of \$63,845 have been paid or exchanged for real estate bonds; and the balance outstanding carry interest at 8 per cent. till they can be taken up. \$25,000 have been paid upon notes of the steamer Planet, maturing the past summer.

Other bills payable for discounts, land damages, depot property, etc., amounting to \$52,353 05, have also been paid.

A comparison of the capital stock, funded and floating debt, on the first of November, 1857, and the first of January, 1859, shows the following decrease:

Capital stock.....	\$1,500 00
Income bonds.....	18,000 00
Dividend certificates.....	63,845 00
Bills payable.....	77,353 05
Due individuals.....	2,091 28
Total.....	\$162,789 33

The amount of unfunded debt remaining on the first of January, 1859, was \$193,436 40. Of this amount \$167,876 40 will mature in 1859; the balance in 1860.

Provision has been made in the issue of real estate bonds, and in the proposed application of the net earnings of the road, to satisfy all demands upon the company the present year.

## GENERAL STATEMENT.

Capital stock .....	\$988,000 00
1st mortgage bonds .....	512,000 00
Income bonds .....	62,000 00
Real estate bonds and accrued interest .....	188,864 75
Dividend certificates outstanding .....	51,590 00
Bills payable .....	127,687 31
Account payable .....	7,991 90
Unclaimed dividends .....	520 00
Interest scrip outstanding .....	295 93
Income account, Nov. 1, 1857 .....	94,214 73
Received of other roads for account of 1857 .....	815 59
Gross receipts for 14 months end'g Dec. 31, 1858 .....	243,281 93
	\$2,277,262 14
Road and equipment .....	\$1,884,344 80
Steamboats .....	120,000 00
Materials on hand .....	22,207 15
Discount on real estate bonds .....	19,830 00
Bills receivable .....	4,000 00
Due from agents and other roads .....	2,503 61
Insurance and interest on steamers .....	10,398 80
Debts due, accounts unadjusted .....	12,140 20
Treasurer, cash on hand .....	4,870 53
Interest on funded debt, for 14 months ending Dec. 31, 1858 .....	59,155 49
Interest on floating debt for same .....	14,526 40
Taxes .....	11,867 16
General expenditures, 1857. Paid in 1858 .....	3,420 15
General expenditures, 14 months ending Dec. 31, 1858 .....	107,997 85
	\$2,277,262 14

## Bay de Noquet and Marquette Railroad.

This road extends from the shore of the bay into the interior  $17\frac{1}{4}$  miles, the stations being as follows: Franklin, 5 miles; Duncan's steam saw-mill, 9 miles; Negaunee (Pioneer works, and Jackson mine), 14 miles; Cleveland mine, 16 miles; and Lake Superior mine,  $17\frac{1}{4}$  miles. The rise of the road from the lake to the Lake Superior mine, is 850 feet, the termination being on the summit of the ridge, from which the streams on one side descend to Lake Superior, and on the other to Lake Michigan. From the termination of the road, as now laid, to where it will end on Lake Michigan, the descent is marked but gradual. During the ensuing year, the road will be extended two and three-fourths miles, making the twenty miles, which will entitle the company to one-third of the land grant to the railroads leading from this place.

The running stock of the road consists at present of two locomotives, one passenger and one hundred freight cars, capable of bringing from the mines to the bay about 600 tons of ore, or pig metal, per day. The stock, during the next six weeks, will be increased by fifty freight cars, so that the company will be able to deliver 1,000 tons of ore per day.

The road commenced operations May 9th. The receipts for the succeeding five weeks were 13,209 tons, of which 1,506 tons were of pig metal, from the Pioneer works, at Negaunee; leaving a balance of ore of 11,703 tons.

There has been shipped during the season the following amounts:

Lake Superior Iron Co., S. P. Ely, Sec'y, ore .....	4,178 tons
Cleveland Iron Mining Co., R. Nelson, Agent, ore .....	2,353 "
Jackson Iron Co., Sam'l Peck, Ag't, ore .....	5,550 "
Pioneer Iron Co., T. J. Spilman, Agent, pig iron .....	1,506 "
Phelps' Furnace Co., S. R. Gay, Agent, pig iron .....	600 "

Total shipments .....

14,187 tons  
The number of hands employed at the several mines and furnaces are as follows: Lake Superior mine, 40 men; Cleveland mine, 40 men; Jackson mine, 40 men; Pioneer works, 300 men; and Phelps' furnace, 200; making a total of 620 men.

## Opening of the Northern Railroad of New Jersey.

On Thursday, 26th ult., the new railroad connecting Jersey City with Piermont was opened by a celebratory excursion.

The road had long been talked of by the farmers along the line of it, but it was supposed that its cost would forbid its construction in these days of disaster to railroads. But Mr. William Saeeden, the Civil Engineer of the road, estimated that it might be done for \$17,000 per mile. They found it difficult to believe him until Messrs. Seymour & Tower offered, if \$150,000 of stock were subscribed, and \$200,000 of bonds could be sold at 90 cents, to build and equip the road for that money, taking 13 per cent. of their pay in stock, and to run it for ten years, paying 7 per cent. on the bonds, and 5 per cent. dividends on the stock. This offer was convincing; the stock was subscribed by over 300 different men; the bonds were sold in small quantities, and entirely to men along the line, and ground was broken March 31, 1858.

The lower terminus of the road, it is expected, will be located at Hoboken, after the completion of the tunnel through Bergen Hill, by the Erie Railroad Company. In the meantime, the trains will be run over the temporary track of the Erie Railroad between the slaughter House and Jersey City, arriving at and leaving the north side of the passenger depot of the New Jersey Railroad Company. From the Slaughter House, or point at which the Erie Railroad will turn for the western entrance of the Bergen Tunnel, the new railroad diverges to the north-eastward, and proceeds up the Valleys of the Hackensack and Overpeck, about two miles from the Hudson River, following the western base of the Palisade ridge to the northern terminus. The extent of the road newly constructed is  $21\frac{1}{4}$  miles, which, with one mile of the Piermont Branch Railroad at the northern terminus, and about  $2\frac{1}{2}$  miles of the Erie Railroad at the southern terminus, will make the entire length of the road operated about 25 miles. As the road crosses no navigable streams or water courses of magnitude, no draw or truss-bridges whatever are required. There are over eighteen miles of straight track on a nearly uniform level, a few feet above tide water. An abundance of timber, &c., was found along the Palisades, and the owners of property, in most cases, cheerfully conceded the right of way. With these advantages and good management, the road has been built and equipped with two locomotives, six passenger cars, two baggage and smoking cars, five freight cars, and ten platform cars, for \$17,000 per mile; whereas, the first 25 miles on the Harlem Railroad cost \$100,000, on the Hudson River Railroad \$90,000, and on the New Haven Railroad \$80,000 per mile.

This road will bring into close and convenient connection with New York City a highly cultivated region of country, which heretofore has remained in comparative seclusion. In a single day last summer, no less than two million baskets of strawberries, and about fifty tons of vegetables, passed through English Neighborhood on their way to New York markets, and still more would have been sent but for the objections which farmers have to sending fruit in wagons over rough roads. With three or four trains a day, each way over the road, as contemplated, the farmers will not only have an opportunity of sending their fruits and vegetables to our markets, but also large additional supplies of pure milk.

During the suspension of navigation on the Hudson river in winter, the importance of this railroad will be still more fully developed, for instead of a single train a day by a circuitous route of about 50 miles, passengers from Piermont, Nyack, &c., will be enabled to reach the city after an hour's ride by the new route, either in the morning, at noon, or in the evening.

As there are fifteen way-stations on the line between Jersey City and Piermont, averaging one for every mile and a half of the road, it is evident that the local travel will be pretty well accommodated. A line of telegraph is also being constructed on the line of the road, the posts for which are al-

ready down, and offices will be opened at an early day at all the principal stations.—*Dinsmore's Metropolitan and Suburban Guide.*

## Ohio and Mississippi Railroad.

The annual meeting of the stockholders of this road was held at Cincinnati on the 6th instant, at which the usual reports were submitted.

The following is a statement of the capital account under the new organization:

## LIABILITIES.

Stock .....	\$6,584,681 00
Mortgage bonds .....	9,880,000 00
Floating debt, incurred prior to May 10, 1856 .....	142,495 00
Wm. H. Aspinwall and associates .....	360,000 00
City of Cincinnati .....	600,000 00
Bills payable .....	22,767 01
Due foreign roads and others .....	135,668 16
Unpaid coupons of interest .....	1,069,110 00
	\$18,794,721 17

## ASSETS.

Road, real estate, equipment and telegraph, including expenses and interest, paid and unpaid as per contra .....	\$18,635,687 87
Debts due from foreign roads, individuals, and bills receivable .....	112,857 55
Materials and wood on hand .....	43,429 21
Cash balance .....	2,746 54
	\$18,794,721 17

The earnings of the road for the past year were as follows:

## REVENUE.

Gross revenue in Passengers .....	\$492,540 67
" " Freight .....	322,750 43
" " Express .....	22,099 85
" " Mail .....	44,566 66
	\$881,957 61
Less—uncollected of revenue .....	80,966 84
	\$800,990 77

## EXPENDITURES.

Operating expenses, 1858-'59 .....	\$569,516 91
" " 1857-'58 .....	24,134 42
Construction work, 1857, '58 and '59 .....	65,150 21
Bills payable .....	80,579 00
On account of old floating debt .....	8,665 95
Office expenses, interest, discounts, &c. .....	24,997 64
On account of rolling stock .....	5,184 19
On account of materials and wood .....	16,334 76
Due from individuals .....	3,681 15
Cash balance on hand .....	2,746 54
	\$800,990 77

The earnings for 1857-'58 were:

## REVENUE.

Gross earnings in Passengers .....	\$477,469 65
" " Freight .....	223,521 07
" " Express .....	20,072 74
" " Mail .....	34,645 14
	\$755,708 60
Less—uncollected of revenue .....	64,634 24
	\$691,074 36

## EXPENDITURES.

Operating expenses .....	\$462,235 07
Construction work .....	128,838 34
Taxes, rents and real estate .....	28,337 27
Office expenses, interest, discounts, &c. .....	41,851 01
On account of floating debt .....	17,468 97
Due from indiv's and bills receivable .....	3,584 00
Cash balance in hand .....	8,759 70
	\$691,074 36

## Burlington and Missouri River Railroad.

We learn that the grading and bridging on this road will be completed to Ottumwa within a month. This will extend the road six miles further—on which the track will soon be laid when the grade is ready.



**Northern Railroad of New Hampshire.**

The Directors of the above road have submitted their report for the year ending March 31, 1859. The Main line from Concord to West Lebanon is 69 miles long, and the branch from Franklin to Bristol 13 miles. The earnings for the past year have been as follows:

From passengers .....	\$83,875.37
" freight .....	256,416.97
" mail, exp. and rent. .	12,758.51
" miscellaneous sources. .	50.07—\$353,100.92

The working expenses have been:

For maintenance of way. \$51,521.29	
" locomotive departm't 62,765.37	
" transportation..... 30,402.97	
" general expenses..... 21,275.01—	165,964.64

Net earnings for the year.....\$187,136.28  
Less constr'n expend'ts...\$26,370.26  
Am't rec'd for exchange on

car..... 1,000.00—	25,470.26
	\$161,666.02

Less State taxes .....

	10,145.95
	\$151,520.10

Receipts from interest and dividends..... \$2,363.60

Charged to income, dividends of 1858, telegraph stock, and transfer to contract account..... 134,910.86—132,547.26

Balance of income per last report .....

	\$18,972.84
	\$186,546.38

Which may be considered as invested in—

\$225,000 of Northern Railroad Co. (N. Y.) second mortgage bonds.....	\$33,750.00
Fuel, shop stock, etc., on hand.....	66,571.42
422 shrs. Northern R. R. Co. (N. H.).....	17,668.50
Remainder in cash assets. .	68,556.46—\$186,546.38

Not included in the above statement are unadjusted claims estimated at \$4,498.16, and assets estimated at \$526.80.

Since the last report \$17,400 more of bonds have been issued under the contracts, making the whole issue to March 31, 1859, \$385,200, the interest on which has been paid as usual from receipts accruing under the contracts. During the past year there has been purchased of that issue for cancellation \$51,000, making, with \$34,700 previously bought, the amount of \$85,700, all of which have been cancelled, and charged off before closing the accounts of this year, leaving outstanding March 31, 1859, as follows:

Bonds due Jan. 1, 1860 .....	\$35,200 00
" due April 1, 1864.....	71,700 00
" due April 1, 1874.....	192,600 00
	\$299,500 00

The Contingent Fund has increased somewhat during the past year. The inventory is as follows, viz:

281 shares Northern Railroad at cost....	\$19,559 84
\$15,000 b'ds N'th. R. due in '64 } at cost 13,175 00	
\$5,000 b'ds North. R. due in '74 }	
Loans on demand, with collateral.....	8,950 00
Cash in hands of treasurer .....	624 78
	\$42,309 62

The operations for the two years past compare as follows:

Year end'g				
March 31	Gross rec'pts	Exp'ses	Net income	
1858.....	\$365,879 70	\$240,575 47	\$125,304 23	
1859.....	353,100 92	201,580 82	151,520 10	

Making an increase in the net income of \$26,215 87. The decrease in expenses has partly

arisen from the low prices of material labor, and, therefore, upon a revival of business larger prices may increase the expenditures.

Upon the Bristol branch, for the same year, the Gross receipts were \$13,889 81, and the expenses \$6,619 91; net income, \$6,769 99.

The following is the balance sheet of the treasurer of the company, March 31st, 1859:

LIABILITIES.	
Capital stock .....	\$3,068,400 00
Income bonds .....	186,546 38
Bonds outstanding .....	299,500 00
Bills payable .....	12,320 65
Dividends due and unpaid .....	4,208 76
Coupons due April 1, 1859 .....	8,556 00
Contingent fund .....	624 78
Coupons due and unpaid, etc. ....	89 51
	\$3,580,246 08

ASSETS.	
Construction .....	\$3,068,400 00
Contracts .....	274,767 24
Northern (Ogdensburg) R. R. stock ..	17,668 50
" " 2d mort. bonds .....	33,750 00
Shop stock, waste, fuel, and oil ....	66,571 42
Bills receivable .....	55,835 45
Cash, and cash items .....	63,253 47
	\$3,580,246 08

**Morris and Essex Railroad.**

The annual meeting of the stockholders of this company was held at Newark, on the 16th. From the report of the Directors we learn that the receipts of the company for the year ending May 31, 1859, were:

From passengers.....	\$138,217 38
" freights.....	92,391 47
" mails and miscellaneous.....	8,570 94
	\$239,179 79

And the expenses were:

Operating road.....	\$53,537 21
Repairs.....	50,889 91
Fuel, etc.....	17,407 55
Salaries .....	7,805 11
	129,139 78

Net income .....	110,040 01
Paid int. on funded debt...\$23,469 92	
" div. 3 per cent. on capital stock.....	34,734 15
	58,204 07
	\$51,835 94

The gross receipts of the previous year were \$237,765 11; expenses same year, \$136,228 06; net earnings, \$101,537 04. The net earnings of the last year exceed those of the previous year by the sum of \$8,407 97. 287,630 passengers, exclusive of commuters and those passing free, have been carried over the road during the year, with entire exemption from loss of life or personal injury to any so carried. The number of passengers exceed that of last year by 14,271.

The present equipment of the road consists of 2 ten-wheel, 7 eight-wheel, and 2 six-wheel engines—total, 11; 15 eight-wheel passenger cars, 4 eight-wheel baggage cars, 1 four-wheel baggage car, and 86 freight cars.

BALANCE SHEET.	
Capital stock .....	\$1,157,805 00
Funded debt .....	340,000 00
Contingent fund .....	262,757 71
	\$1,760,562 71

Cost of road and equipment.....	\$1,613,361 40
Capital stock of Tel. Co.....	2,000 00
" " " Newark and Bloomfield Railroad.....	55,000 00
Wood on hand paid for.....	10,500 00
Cash, and cash items.....	79,701 81
	\$1,760,562 71

In relation to the extension of the road to the Hudson River at Hoboken, the report says:

An arrangement has been made with E. A. Stevens, Esq., for a full subscription to the additional stock to be issued for that purpose, upon the terms stated to the stockholders at the special meeting held on the 16th of last month. The details for the regulations of the mutual business of the present road, and the extension have nearly all been arranged, and the work will be commenced at an early day. It is only necessary to say that the arrangements made is entirely satisfactory to the Board, and at a great permanent advantage, as they believe, to the Company.

The following gentlemen were elected Directors: William Wright, Joel W. Condit, Beach Vanderpool, Jeremiah T. Garthwaite, Wm. N. Wood, Aaron Robertson, Robert Hamilton, Joseph P. Bradley, Daniel P. Babbitt.

**Progress of Railroads in Florida.**

We copy from the *Floridian* the following resume of the progress of railroads in Florida:

The Internal Improvement act was passed in 1855, at which time the only railroad in operation was between Tallahassee and St. Marks—21 miles. The great lines of road pointed out by that act as proper objects for aid by the Internal Improvement Fund, extended from the water of Escambia Bay in the West, to Jacksonville in the East, and from Fernandina on the Atlantic to Tampa Bay, with an extension to Cedar Key, on the Gulf. Extensions also were authorized from the Main line running through Middle and Western Florida. Companies formed as speedily as circumstances would permit, and proceeded to organize the requisite means. The Florida, the Central, and the Pensacola and Georgia Companies, went vigorously to work. Surveys were made, routes adopted, and the trustees notified of the particular portions of the lines specified each company proposed to construct. The Pensacola and Georgia Company took to itself the road between Alligator and Pensacola—the Central, that portion lying between Alligator and Jacksonville, and the Florida Company undertaking the whole work from Fernandina to Cedar Keys. Look at the result. The Pensacola and Georgia has quite completed the grading of its part from Tallahassee to the Suwannee river, from which point the contractors are rapidly carrying the road-bed to Alligator, the place of junction with the Central Road, and has, in addition, ironed and equipped twenty-five miles with heavy rail; the Central has graded all its line, ironed twenty-five miles, and purchased rail for twelve more; the Florida has finished grading through to Cedar Keys, a distance of 154 miles, and laid the track on one hundred and eleven miles. In addition to this, the St. Marks road has been re-graded and re-ironed with heavy rail. When summed up these labors show about three hundred miles of grading, and one hundred and eighty-two miles of tract ironed and equipped, since the inauguration of the system in 1855! Is not this accomplishing a great deal in a short time? Indeed, we think such strides have been made within an exceedingly brief space, in progression towards placing Florida on a footing with her sister States, as to justify the strongest feelings of exultation on the part of all our people as well as the indulgence of the confident hope that the day is rapidly drawing near when our splendid system of roads will be completed. What a proud day will be to Floridians, when a few hour's pleasant ride will suffice to pass from the Gulf to the Atlantic—when that obstruction and dread to the great stream of travel, the Florida Coast, with its reefs and shoals, its dangers and difficulties, shall no longer exist, and when, by reason of our system of roads, Florida shall become the great thoroughfare for the immense tide of human beings that is ever rolling back and forth with the certainty and regularity of the ocean's swell. Patience and perseverance a while longer on the part of those who are so nobly laboring to carry these works successfully through and accomplish this

result, and the exercise of "a generous confidence" and forbearance by those who are by law in a position to interpose obstacles to their progress, is not only now a high duty, but is all that is required to secure, beyond a peradventure, the greatest good to Florida that is in the power of man to achieve.

#### Journal of Railroad Law.

##### ACTION FOR INJURIES—PLAINTIFF'S NEGLIGENCE.

The case of *Dascomb vs. The Buffalo and State Line Railroad Company*, recently reported, strikingly illustrates the rule of law that a person cannot recover, for injuries sustained through a railroad accident, or other casualty, where his own negligence has contributed to cause the injury.

The facts in that case were briefly these: The accident for which the plaintiff sought to recover, occurred at a crossing on the defendant's road. About four or five o'clock one afternoon the plaintiff, who lived about a quarter of a mile from the crossing, upon a road called the Camp Road, drove down to cross the railroad. He was in a wagon, driving a single horse. His son, about 12 years old, was in the wagon-seat by his side, and a hired man, in the employ of the plaintiff, was sitting on the bottom of the wagon behind them. There was evidence that, at that particular time, when the plaintiff drove across the track, no train was due at that crossing by the company's time-table. The plaintiff did not, nor did his son, look either way to see whether any train was coming. The hired man looked out in one direction, but not in the other. It so happened that a train, behind time, was, at that moment, coming towards the crossing from the other direction. There was a forest and embankment partly concealing the track on that side from the view at the crossing, and the party in the wagon did not see the cars, until just as the wagon drove down upon the track. The locomotive struck the wagon before the plaintiff could get quite across; the horse escaped, but the wagon was struck, the boy killed, and the hired man and the plaintiff injured.

The Court held, that the plaintiff could not recover for the reason, that his own negligence had contributed to cause the injury. The following is an extract from the opinion:

MARVIN, J.—Was there not great carelessness and negligence on the part of the plaintiff? It certainly so seems to me. It is not claimed by the plaintiff's counsel, that the plaintiff looked to the right or to the left, up or down the track; or that he particularly consulted his hearing. One of the positions of the counsel is, that the plaintiff was not negligent, as he supposed, and had a right, from the time-tables of the defendant, to suppose that the cars had passed. As there was conflicting evidence as to the time when the train did actually pass, I shall assume, for the benefit of the plaintiff, that the train was behind time; and then, in my opinion, the conduct of the plaintiff was most unfortunately and lamentably negligent. It seems to me, that it should, and must, be regarded as very little short of recklessness, for any one to drive on to the track of a railroad without first looking and listening to ascertain whether a moving locomotive is near. What difference can it make, if a train has just passed, and whether the train is on time? Another train may be approaching. It must be kept in mind that railroad companies own their roads, and have as perfect a right to use them, in a lawful manner, as the

farmer has to cultivate his farm, or the mechanic to use his tools. The law holds railroad companies to a strict accountability for any of their acts of negligence, by which any one who is without fault sustains an injury in his person or property. Assume, in this case, that it was negligence in the defendant to be behind time, and will this, in law, excuse the defendant from observing care on his part? In my opinion, it will not. Such a rule would be extremely dangerous, and there would be much difficulty in its application. It may be that those who live in the immediate vicinity of railroads, and who frequently cross them, may, when they suppose a train has just passed, be less careful, and this may grow into a habit; or they may consult time-tables, and from them reason that there can be no locomotive near, and act without regard to care; but if they do so, in my opinion, they act at their peril. They will be charged with negligence in case they rush on to the track without looking, or trying, in a proper way, to ascertain the fact whether danger is near. And they will not be permitted to recover damages for any injury which they sustain.

It is well settled in this State, as a principle of the common law, that he whose negligence has contributed, in any essential degree, to the injury he has sustained, cannot maintain an action to recover damages from the other party, whose acts of negligence have also contributed to produce the injury. When negligence is the issue, it must be an unmixed case. This rule is vastly important in every-day life. It is in constant activity in great and small affairs. The rule, properly understood, should, in my opinion, be maintained in its purity. It is generally salutary in its effects; inducing care, caution, and circumspection. The careless and negligent are taught that if they sustain an injury to which their negligence contributed, they must bear the loss; that the law will afford them no redress.

In the present case, the plaintiff, living about a fourth of a mile from the railroad track, owning a farm divided by the track, leaves his house, with a horse and wagon, taking in his son and hired man, and drives along, upon a trot, directly upon the track of the road, without taking the slightest precaution to ascertain the dangerous proximity of the locomotive. This was negligence. And if the rule to which I have referred, is to be maintained, it must be so held. If such negligence is a question of law, then the Court should have taken the cause from the jury. If it is to be regarded as a question of fact, then the verdict is against undisputed evidence, establishing a fact or facts which show, in law, that the plaintiff cannot recover. And it should, for this reason, be set aside. In my opinion, it was a question of law for the judges at the Circuit, and he should have nonsuited the plaintiff.

Negligence is, undoubtedly, often a mixed question of law and fact; and when so, it should be submitted to a jury. When the main fact or facts touching the negligence is sought to be proved by other facts, called circumstantial evidence, the question is always a question for the jury. They are to say whether the facts proved justify, by fair reasoning, the finding of the main fact in issue to be true. They draw the inferences from the circumstantial facts. But when the direct fact in issue is established by undisputed evidence, and

such fact is decisive of the cause, a question of law is raised, and the Court should decide it. The jury have no duty to perform. The fact or facts controlling the rights of the parties being ascertained, it is the duty of the Court to pronounce the law, as much so as upon a special verdict. The issue of negligence is not an exception to the rule.

The plaintiff's counsel makes the point that if the defendant was negligent, in not ringing the bell, or sounding the whistle, the plaintiff may recover, though he was careless and negligent, provided such carelessness was not so gross as to make applicable the maxim—*volenti non fit injuria*. He refers to the 39th section of the General Railroad Act (Laws of 1850, p. 232). The section referred to, requires that a bell shall be rung continually for 80 rods before crossing a traveled road or street, or that a whistle shall be so sounded, under a penalty of \$25, and declares that the corporation shall be liable for all damages which shall be sustained by any person by reason of such neglect. If this section will justify a recovery, in any case, when the plaintiff has been negligent, the question would be whether the injury had been sustained by reason of the neglect of the company to ring the bell, or sound the whistle. Such neglect on the part of the company, must be the sole cause or reason of the damage. This, of course, supposes the plaintiff free from fault. The statute does not excuse his negligence. Cases may arise under peculiar circumstances, when the omission to ring the bell, or sound the whistle, will be the sole cause of the injury. Suppose one desires to cross the track in a very dark night. He pauses at the track, but he can neither see nor hear the train; or, if he hears it, he judges that it is at an entirely safe distance. He knows that the bell is to be rung, or the whistle sounded, a quarter of a mile. The circumstances are favorable for his hearing the sound, but he hears nothing, and proceeds to cross, and is struck. Such a case might be a proper case for the application of the statute. Others might be supposed. But in my opinion, the statute has not changed the law excusing the plaintiff for negligence.

#### North Pennsylvania Railroad.

Of the extension of this road to Easton, the *Journal* of that place thus speaks:

The necessity and importance of having a terminus to this road other than either Freemansburg or Bethlehem has become so apparent, that it has been resolved to extend it to Easton, and perhaps up the Delaware, to connect with the Lackawanna road in the neighborhood of Belvidere. There are but two locations possible between Freemansburg and this place. The one would run across the country to the Bushkill, and along the Bushkill to Easton; the other would run from Freemansburg along the Lehigh to Easton. This latter route would be the least expensive to the company, as the land damages would be small, compared with what they would be along the other route. It is said, also, that if the road is located along the Lehigh, it will be necessary to run it from the Lehigh to the Bushkill through Fourth street. This, as might be expected, meets with decided opposition from the property owners of Fourth street, and it is our opinion that it will be impossible to obtain the right of way from the Borough Council.

As the company this time ask no pecuniary assistance from our citizens to make this extension, and as it will be a valuable improvement to the town, we hope that no obstacle of any kind will be thrown in the way so as to embarrass or defeat the movement.



# TREATISE

ON THE  
PRINCIPLES OF CIVIL ENGINEERING  
AS APPLIED TO THE  
CONSTRUCTION OF WOODEN BRIDGES.

By S. S. POST, *Civil Engineer,*  
And late Chief Engineer of the N. Y. & Erie R. R.

(Continued from p. 391.)  
FOUNDATIONS.

§ 113. While the ultimate strength of the superstructure of a bridge may depend upon the stability of a pier, that stability may also be materially dependent upon the solidity of the foundation upon which the pier is erected.

When the base of a pier is made to rest upon a stratum of rock, or of earth of sufficient density and resistance to sustain the work, it is a natural foundation and the best that can be established.

Gravelly and sandy soils are incompressible, and are capable of supporting the base of any work if the precaution be taken to secure those soils from displacement. Clay and all other earthy soils are more or less compressible and present difficulties either for confining and consolidating them, or for obtaining a sufficient surface of pressure without resorting to an undue extension of the base of the work.

When a natural foundation can be obtained only at a great depth of excavation and consequently at great expense, its want is usually supplied by piles, timbers, crib-work, heaps of loose stones or some other kind of artificial fabric.

Among the most efficient of artificial foundations, and the one most common is that which consists of piles driven into the soil, their tops cut off so as to coincide with a level plane, and all connected together by timbers, forming a platform upon which the base of the pier may rest.

Piles and timbers employed in foundations will, generally, after the completion of the work, be covered to such depth by earth or water, as not to be liable to decay. Sometimes, however, piles have a part of their length above the surface of the ground or water, and are capped, braced and tied together in various way to serve as piers.

It often happens, where a bridge is to be built, that timber is plenty, while stones and bricks cannot, at the time, be obtained.

In such cases the proper foundations for masonry should be prepared. They may then be surrounded by piles or by temporary piers of framed timber, so arranged as to admit of permanent piers being constructed within them, after the road shall have been opened for traffic and before the piles or timbers decay.

The number and dimensions of piles for a foundation depend upon the area of the base of the pier, the weight to be supported, and the depth they can be made to penetrate the soil.

Experience has shown that little or no advantage is derived in placing piles nearer than 2½ or 3 feet from centre to centre, and that they can be driven with the best advantage when a certain relation exists between their lengths and mean diameters. A cylindrical pile, 12 feet long, should have a diameter of about 10 inches. If the lengths of piles be taken in proportion to the cubes of their diameters they will have nearly the proportion which nature gives them, for

$$10^3 : 11^3 :: 12 : 16 \text{ feet long.}$$

$$12^3 : 13^3 :: 20\frac{1}{2} : 26$$

$$13^3 : 14^3 :: 26 : 33$$

$$14^3 : 15^3 :: 33 : 40\frac{1}{2}$$

$$15^3 : 16^3 :: 40\frac{1}{2} : 49$$

Piles are driven by means of a machine called a *pile engine*. The effect is produced by the successive percussions of a heavy body, variously called, the *hammer*, *monkey* or *ram*—usually made of cast iron—which is raised by animal or steam power, and allowed to fall upon the top of the pile.

Each pile should have its head or top cut square with its axis, and hooped with iron to prevent splitting. The foot should be pointed, and when the ground is hard the point should be shod with iron. No bark or knots should be left upon the pile and every cause of friction should, as far as possible, be diminished.

In driving, when a pile has reached the hard bottom it will descend no farther, and the interruption is absolute. But the friction of the ground against the pile may overcome the effect of the ram, in which case the interruption is only apparent and the pile is liable to settle under a continued heavy load.

The extent of an interruption, or the resistance which the ground opposes to the pile, is generally estimated by the quantity of percussion it is supposed to receive; since no force short of the momentum of the ram will produce a greater penetration of the pile, and an excess of momentum only, will be effective.

The exact quantity of percussion with which a ram strikes a pile seems never to have been determined in such a manner as to serve as a reliable basis for estimates of the resistance piles will afford for sustaining a load placed upon them.

The *momentum* of a body is defined as being its quantity of motion, that is it is the product of its mass into its velocity; consequently if one body contain twice as much matter as another, and both move with the same velocity, the quantity of motion, or the quantity of matter in motion, will be twice as great in one case as in the other.

Force has been defined (§ 1) as an agency which tends to cause or destroy motion. This is a force of pressure, and exists while motion does not actually take place.

When the tendency to motion takes effect so that motion results, the force becomes a *force of motion*.

The laws which govern the operations of the forces of motion, and those which govern forces of pressure, are as different as their phenomena and attendant circumstances. The one is an active force, the other a dead one; the one is not weight, the other has no momentum. Nevertheless, certain relations exist between them, and the phenomena of either may in a degree, be deduced from those of the other.

Besides the difficulty of determining the quantity of percussion, there exists a further difficulty in ascertaining how much of that percussion may be estimated as effective upon the pile, and how much lost or gained on account of the partial elasticity of the ram and the pile.

When one non-elastic body in motion strikes upon another at rest, no recoil or rebound takes place, but after the stroke they move together

with equal velocities and the sum of their moments or forces, remains the same after as before the stroke. As much motion as the striking body communicates so much it loses.

If the ram falls upon a pile free to move it will transfer to the pile a portion of its force, and whatever force the pile may acquire from the collision the same will be lost to the ram, and the total moving force of the ram and the pile will be exactly equal to the moving force of the ram before impact.

If the ram and the pile were perfectly non-elastic, they would, after impact, move on together, so that both would have the same motion, and the product of the weight and velocity of both would be equal to the product of the weight and velocity of the ram before impact. Thus, if the weight of the ram be taken at 2,000 lbs., and the pile at 1,000 lbs. both moving freely, but without acceleration by gravity, after impact, their united velocity will be two-thirds of that previously acquired by the ram alone. The product of the weight and velocity of the ram after impact will be but two-thirds of that product before impact, while the product of the weight and velocity of the pile after impact will be equal to one-third the product of the weight and velocity of the ram before impact.

Elastic bodies are those which have a certain spring by which their parts, upon being pressed inward by percussion, return to their former state, throwing off a striking body with some degree of force. When the elasticity is perfect the body restores itself with a force equal to that with which it is compressed.

When one elastic body in motion strikes upon another at rest, the one loses and the other gains twice as much momentum as if the bodies had been void of elasticity.

Consequently, if the body in motion be twice as great as the body at rest, the larger body, after impact, will have lost two-thirds of its velocity, and the smaller body will have acquired a velocity four times as great as that of the larger body.

If the ram and the pile were perfectly elastic bodies, and if the velocity of the ram at the impact were 30 feet per second, taking the weights as before, the velocity of the ram after impact will be at the rate of 10 feet per second, and that of the pile 40 feet per second. If perfectly non-elastic, the velocity of the ram would be 20 feet, and that of the pile also 20 feet per second. In both cases the sum of the products of the weight into the velocity of both after impact will be equal to the product of the weight and velocity of the ram before impact.

In one case the momenta of the pile and the ram act together to sink the pile with a force that may be represented by

$$(2,000 + 1,000) \times 20 = 60,000,$$

and in the other case the momentum of the pile, equal to  $1,000 \times 40 = 40,000$  only, acts to produce penetration into the ground.

Reversing the weights, by making the ram 1,000 lbs. and the pile 2,000 lbs., and putting the velocity of the ram at the instant of impact, 30 feet per second, if non-elastic the velocity of both after impact will be 10 feet per second, or if perfectly elastic, the pile will receive a velocity of 20 feet per second, while the ram will rebound with a velocity of 10 feet per second. For in the case

of non-elasticity the ram parted with two-thirds of its momentum. In the case of a perfect elasticity, it parts with twice as much, or four-thirds of its momentum. Hence this excess of one-third of its momentum is negative or acts in the opposite direction and causes the rebound.

In the case of non-elasticity the pile and the ram will move together with a force of

$$(1,000+2,000) \times 10 = 30,000,$$

and in the case of perfect elasticity with a force of

$$2,000 \times 20 = 40,000.$$

From these consideration it will appear that if the ram and pile were non-elastic, the effect upon the pile would be equal to the whole force of the blow of the ram, and that if the ram and pile were both perfectly elastic, so long as their united weights remain the same the effects of percussion, that is, the momentum of the pile will be the same whether the ram be the greater or the smaller weight.

To place the effects of elasticity and non-elasticity in more perfect contrast, as well as that of different proportions, in the relative weights of the pile and the ram, the following table has been computed on the supposition that the ram falls with a velocity of 30 feet per second at the instant of impact, and that the momentum is as the product of the weight into the velocity.

No.	Weight of Ram.	Weight of Pile.	Momentum of Ram & Pile when non-elastic.	Momentum of Pile alone when elastic.
1.....	100	900	3,000	5,400
2.....	200	800	6,000	9,600
3.....	300	700	9,000	12,600
4.....	400	600	12,000	14,400
5.....	500	500	15,000	15,000
6.....	600	400	18,000	14,400
7.....	700	300	21,000	12,600
8.....	800	200	24,000	9,600
9.....	900	100	27,000	5,400

In No. 1 the ram falls with a momentum of 3,000 and after impact moves with the pile at a velocity of three feet per second, if non-elastic, but if perfectly elastic it communicates to the pile a velocity of 6 feet per second, and the pile moves onward alone with a momentum of  $900 \times 6 = 5,400$ .

In No. 9 the ram falls with a momentum of  $900 \times 30 = 27,000$ , and after impact, if non-elastic, moves with the pile at the rate of 27 feet per second.

If perfectly elastic the ram will communicate to the pile a velocity of 54 feet per second, when the pile will move with a force of  $100 \times 54 = 5,400$ .

If a non-elastic body strike upon an immoveable obstacle, it will lose all its motion. A perfectly elastic body will return with a force equal to the stroke.

A ram falling upon a pile when driven home will recoil more or less, but not with a velocity equal to that of its descent; consequently, an imperfect elasticity exists between the ram and the pile, and the range of effect will be somewhere between the two columns of momenta in the table.

From this table it appears that when the ram and the pile are of equal weight, nothing is gained or lost in consequence of the elasticity or of the non-elasticity of the bodies; but there is a decided advantage in having the ram lighter than the pile, and an equal disadvantage in having it

heavier than the pile, when they are quite elastic.

It has been ascertained that near the earth surface, a body falling freely from a state of rest will descend 16 feet and 1 inch in a second of time, and that during that second the rate of speed or velocity increases from zero to 32 feet 2 inches per second.

In two seconds the body will fall 64 feet and 4 inches, and at the end of that time will be descending at the rate of 64 feet 4 inches in one second. In three seconds the body will fall from the state of rest 144 feet 9 inches, and at the end of that time will have acquired a velocity of 96 feet per second.

In four seconds the distance fallen will be 257 feet, and the greatest velocity attained will be at the rate of 128 feet per second.

Here it is seen that the distance fallen through in two seconds is four times as great as in one second. In three seconds the distance is nine times, and in four seconds it is sixteen times as great as in one second. Hence the distances fallen through, are said to be as the squares of the times. Thus—

Time in seconds. .... 1, 2, 3, 4, 5, 6, 7, etc.  
Spaces of  $16\frac{1}{2}$  feet  
each ..... 1, 4, 9, 16, 25, 36, 49, etc.

It will also be observed that the velocity at the end of two seconds is twice as great as at the end of the first second; at the end of three seconds, three times, and at the end of four seconds, four times as great as at the end of the first second. Hence the velocity increases in proportion to the time of the fall. Thus—

At the end of seconds 1, 2, 3, 4, 5, etc.,  
The velocity in feet  
per second is. ....  $32\frac{1}{2}$ , 64, 96, 128, 160, etc.

Again it will be noticed that at the end of one second the velocity is at the rate of twice the distance fallen; at the end of two seconds the rate of the velocity per second, is the same as the distance fallen in two seconds; at the end of three seconds the velocity is at the rate of two-thirds, and at the end of four seconds, one-half the distance fallen. The proportions between the distances fallen, and the velocities acquired at the ends of those distances, are then as—

Spaces of  $16\frac{1}{2}$  feet  
fallen through ..... 1, 4, 9, 16, 25, 36, 49, etc.  
Velocities of  $32\frac{1}{2}$  feet  
per second ..... 1, 2, 3, 4, 5, 6, 7, etc.  
Velocities of  $16\frac{1}{2}$  ft.  
per second ..... 2, 4, 6, 8, 10, 12 14, etc.

Now, take any one of the numbers in the first series, representing the spaces or distances fallen, extract its square root and the result will be the corresponding number in the second series. Multiply this result by two and it will be the corresponding number in the third series, and this last number will represent the velocity in terms of the distance fallen.

Therefore to calculate the velocity acquired in falling through a given height, the rule is—

Multiply the height in feet by  $16\frac{1}{2}$ , extract the square root of the product and multiply the result by 2. Or take the square root of  $64\frac{1}{2}$  times the height. ( $v = \sqrt{64\frac{1}{2}h}$ ).

If the ram of a pile engine falls one second, or  $16\frac{1}{2}$  feet, it will impinge upon the head of the pile with a force due to a velocity of  $32\frac{1}{2}$  feet per second. If it falls two seconds, or 64 feet, the force will be doubled. If the fall be but one foot

the velocity attained will be  $2\sqrt{1 \times 16\frac{1}{2}} = 8.023$  feet per second. If the fall be 9 feet, the velocity attained will be  $2\sqrt{9 \times 16\frac{1}{2}} = 24.06$  feet per second, or if the height be 25 feet, the velocity acquired will be  $2\sqrt{25 \times 16\frac{1}{2}} = 40.1$  feet per second.

(To be continued.)

#### A New Mode of Making Iron.

A new mode of manufacturing iron is claimed to have been discovered and put in use in St. Louis, by a Mr. Criswell. The process has been examined by a committee of experienced iron masters, who have reported favorably in reference to the same.

The experiment was commenced by filling the tubes with pulverized ore and coal, all of which was done under their own eye, so that no other ingredient could have been mixed with them. They watched the tubes thus filled for forty-eight hours, after which time they were let down in pairs into the boiling furnace below; then worked into "balls," passed through the "queezer," and rolled into "muck bars," all at the same heat. They charged sixteen pairs of tubes with 11,869 pounds of crushed iron ore from the Iron Mountain, and 4,747 pounds of crushed Illinois coal, from the Wenona mines, watching these for 48 continuous hours, when the ore being "carbonized," was let down (in pairs of tubes to a heat), and worked similarly to boiling. Weighing carefully the product of the identical tubes thus charged by them, they found the net yield to be six thousand one hundred and three (6,103) pounds of muck bar, or equal to fifty-one and forty-two hundredths (51 42-100) per cent. of pure iron from the raw ore.

From a detailed statement of the expenses incurred in making this product, they submit the following:

Five tons 6 cwt. of iron ore at \$3.25 per ton is.	\$17 20
164 27-80 bushels coal used, 10c.....	16 43
Two boilers, day and night turn.....	6 00
Two helpers " " " ".....	4 00
Two do. " " " ".....	2 50
Four men at the tubes, day and night turn.	4 00
Three men crushing ore and coal, day turn.	3 00
One laborer, wheeling ore, &c.....	1 00
Use of power per ton, 3 tons at 50c.....	1 50

Gross cost.....\$55 63

The yield being 2 tons, 14 cwt., 2 qrs., and 6 lbs., is equal to \$20 42-100 as cost per ton of 2,240 lbs., or 91 15-100 per 100 lbs., or less than one cent per pound. The gross ton of 2,240 lbs., was produced with 60 bushels of Illinois coal, taking the furnace as heated up, and leaving it so for further produce; or, in other words, they cut in on its work, and took its consumption and yield of 24 hours for their results.

To test its yield they charged a heating furnace with 1,105 lbs. of short piles (7 high) and its yield was 987 lbs. of merchant bar iron. The loss of weight (say 11 per cent.) and other expense of rolling (say \$5), makes the cost of the bar iron 27 66-100 per ton of 2,240 lbs., or at a net cost of 14c. per lb.

They state that in their estimate they made no allowance for wear and tear or contingencies, but endeavored, as near as possible, to get at the net cost—the gross cost would be about \$25 per ton for muck bar, or \$33 per ton for merchant bar—a price much less than the English bar can be made for at home, and certainly of a superior quality. They had this bar iron cut up into small pieces for experimental tests. It shows for itself, and they have no hesitation in pronouncing it bar iron of a superior quality, which means neither cold, short, nor red short.

The Republican contains a communication from Mr. A. Meltenberger, one of the gentlemen from whose report of their experiment and observation, we have selected the above facts, which contains some additional particulars in regard to Criswell's process, or invention, that will be found of especial interest to iron men. It is known that the old



process of making bar iron requires two furnaces—the first to make pig metal, and the other to transform it from pig or chrysalized iron, to bar or fibrous iron. The St. Louis furnace requires but one.

After stating at length the whole principle of the discovery, the writer says that the whole improvement consists in not only making pig metal with the waste heat of the furnace, but avoiding that anomaly in the manufacture of pig iron of carbonizing with charcoal, and oxydizing with an air blast, at the same time causing waste of material, and large amounts of fuel to overcome it. In hot blast furnaces part of this waste is overcome, as part of the oxygen is consumed before entering the blast furnace.

The time given it (48 hours) seems to have the effect to evaporate all the sulphur (which has ever been the bug-bear of all attempts heretofore to make good iron with sulphurous coal, for which iron has a great affinity, *without waste of material*, as the product of 51 per cent., is nearly as much as pig metal can be produced out of the same ore, (55 at the mountain works.) An examination of the muck bars shows that it is all fibrous, not a crystal in it, which are abundant in all cold short irons, and is attributed to the sulphur in the coal with which it is worked.

In reference to the Renton furnace, the failure of which, after so many sanguine predictions as to its success, had induced many to predict that Criswell's would share the same fate. Mr. Miltenberger says that at the very least, the latter is an improvement upon it, and that its success being a demonstrated fact, all other failures were but stepping-stones to the success of Criswell's furnace. He concludes by predicting that in a very few years bar iron will be shipped from Missouri to Pittsburg, and all along the Ohio river, made from Missouri ore direct into bar, and that this invention is to open up a future to the State that the wildest dreams have never reached. Detroit business men will, of course, not be long in availing themselves of the advantages which this discovery offers, and to apply it to the manufacture of our own Lake Superior ore into bar iron.

#### Houston and Brazoria Railroad.

This road is to run in a south-western direction from Houston, Texas, to Columbia, in Brazos Co., on the east bank of the Brazos river. The road is completed and in working order from Houston, seven miles south, to the intersection with the railroad from Buffalo Bayou west to Richmond. The rest of the distance to Columbia, forty-three miles, has been graded and ready for the iron for some time, this work being done by the planters along the route.

Last week a vessel arrived at Galveston, from Liverpool, with four hundred and fifty tons of iron for this graded section of the Houston and Brazoria Railroad. Two other vessels, with some sixteen hundred tons additional iron, and other material for the section, are expected daily at Galveston. This will be all the iron required to complete the work to Columbia by September next.

From Columbia, the road is to run nearly directly west to the Colorado river, to the town of Wharton, on that stream—a distance of thirty miles. This section is being pushed rapidly ahead.—*New Orleans Picayune*, June 3.

#### Chicago, Iowa and Nebraska Railroad.

This road was opened on the 15th June to Cedar Rapids, Iowa, making a continuous line of railroad from Chicago to that point via Clinton, Iowa. From Cedar Rapids there is now a river navigation of 60 miles, on the Cedar river, on the direct line to Fort des Moines, Council Bluffs and Sioux City. This new route has been pushed forward so far towards its completion through the energy and perseverance of its efficient Superintendent and Engineer, Milo Smith, Esq., of Clinton, Iowa, under whose personal direction the road has been so vigorously and successfully managed. It is stated to be the nearest route to Council Bluffs, and we are told the tide of travel is now rapidly setting in this direction.

#### Hannibal and St. Joseph Railroad Lands.

Gov. Stewart has confirmed to the Hannibal and St. Joseph Railroad Company the lands on one hundred and forty miles of this road. All that portion of lands lying on the eastern sixty miles and on the western eighty miles of the Hannibal and St. Joseph Railroad is now in the hands of the company, and is in market, and offered for sale on the most liberal terms. These lands lie in Marion, Lewis, Buchanan, DeKalb, Pike, Knox, Andrew, Davies, Livingston, Carroll, Ralls, Monroe, Clinton, and Caldwell counties, and compose the "garden spot" of Northern Missouri. A very long credit will be allowed upon these lands, so as to bring them within the reach of all. This will result in great benefit to this portion of the State. The retaining of so large an extent of rich lands in the hands of a company, and without the reach of actual settlers, has been of great detriment to the State, and particularly to the Northwest. The offering of the above, hundreds of thousands of acres may, therefore, be regarded as a matter of great benefit to us.—*St. Joseph Gazette*, 16th.

#### Junction and Breakwater Railroad.

Four of the directors of the Junction and Breakwater Railroad have advanced the company the sum of \$37,000, on their own individual responsibility—the sum in addition to the available means of this company necessary to put the road in running order from the junction to the terminus of the grading in Sussex County. The iron has been purchased from the Mount Savage (Md.) Iron Works for the above amount, at the lowest cash prices. Messrs. H. B. Fiddeman and Daniel Currey, two of the directors, have contracted to pay \$10,000 cash on the delivery of two hundred tons of the iron, \$7,000 in six months, \$13,000 in twelve months, and \$7,000 in eighteen months, with interest added to each payment. Messrs. P. F. Causey and Curtis S. Watson, two other directors, have given the first two their obligations that each of the four shall furnish an equal amount to the funds necessary to meet the payments as they fall due.—*Peninsula (Del.) News*.

#### Dubuque and Pacific Railroad.

At a meeting of the stockholders of this company on the 6th, the following named gentlemen were elected new Directors for the term of two years: J. Edgar Thomson, President of the Pennsylvania Central Railroad; John Lord, New York City; John Hodgdon, Dubuque; C. H. Booth, Dubuque; Leo Canfield, Falls Village, Ct.; J. P. Farley, S. Hempstead, Dubuque.

The following named Directors held over by virtue of a previous election, their terms not having expired: O. H. P. Rozelle, Independence; Wm. G. Stewart, F. S. Winslow, R. Bonson, J. H. Emerson, Dubuque; Wm. Ward, Boston.

The Board of Directors of the Dubuque and Pacific Railroad have elected the following officers for the ensuing year:

J. Edgar Thomson, of Philadelphia, President; J. P. Farley, of Dubuque, Vice President; C. H. Booth, do., Treasurer; James M. McKinlay, do., Secretary.

#### Reading and Columbia Railroad.

The friends of this project held a meeting at Ephrata on the 31st of May, and passed a series of resolutions. The *Reading Gazette* says: "There is a good prospect of the early construction of this railroad. It is only 36 miles, and three routes have been proposed, either of which would not be more expensive to make than the East Pennsylvania Railroad. One route starts from a point near Reading, by way of Yocum's forge to the Red Lion tavern, thence along Stony run to Reamstown, thence along the west side of the Ephrata ridge to the Cocalico, near Forney's tavern, 4 miles southwest of Ephrata, and thence following the survey made by Mr. Wilson a few years since, to Diller-ville, near Lancaster, and to Columbia. Another route runs from the Black Horse and Sinking Spring, through the valley to the same point on Cocalico creek, either east or west of New Ephrata."

#### Cincinnati Stock Sales.

By KIRK & CHEEVER.

For the week ending June 20, 1859.

BONDS.	Per cent.
Little Miami, 1st Mort. ....	6s....83 and int.
Covington and Lexington, 2d Mortgage....	6s....50
Cinc. Ham. and Dayton, 2d Mortgage ..	7s....85
Indianap. & Cincinnati, do. do. ....	7s....85
STOCKS.	
Cincinnati, Hamilton & Dayton .....	62½
Columbus and Xenia.....	83
Indianapolis & Cincinnati.....	53
Little Miami.....	84
Ohio and Mississippi .....	3

#### Railroad Earnings.

The following are the receipts of the Memphis and Charleston Railroad for May, 1859:

Amount of passenger receipts.....	\$57,905 14
" freight .....	25,715 52
" mail service .....	4,597 91
" express, etc. ....	1,187 92

Total receipts .....	\$89,356 49
" expenses .....	48,699 83

Total amount of net earnings ..\$40,656 66

The May earnings of the Toledo and Western (Wabash Valley) were:

Passengers .....	\$19,794 90
Freight .....	36,959 84
Miscellaneous .....	3,316 66

Total .....

The following is a statement of the earnings of the New York Central Railroad, for the month of May, 1859, compared with its earnings for the corresponding month of the previous year:

1859 .....	\$412,665 83
1858 .....	510,197 42

Decrease .....

The following statement shows the business of the Philadelphia and Reading Railroad Company, for the month of May, 1859, compared with the corresponding month of last year:—

	1859.	1858.
Received from coal...	\$148,707 06	\$165,678 84
Do. merchandise.	43,333 06	26,551 50
Do. travel, etc. ...	33,423 53	24,553 27

Total .....	\$225,463 65	\$216,783 61
Transportation, road-way, dumpage, renewal Fund, and all charges.....	113,657 60	114,051 81

Net profit for the month,	111,806 05	\$102,731 80
Do. for previous 5 mos.	399,059 73	329,552 87

Total net profit for 6 months.....	\$510,865 78	\$432,284 67
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The traffic of the Great Western Railway of Canada for the week ending June 10, 1859, was as follows:

Passengers .....	\$22,324 41
Freight and live stock .....	7,516 61
Mails and sundries.....	1,727 81

Total .....	\$31,568 83
Corresponding week of last year .....	32,778 13

Decrease .....

The receipts of the Grand Trunk Railway of Canada for the week ending June 4, were.....\$40,386 61  
Week ending May 29, 1858 .....

Increase .....

Total traffic from July 1st. ....	\$2,118,720 51
Same period last year .....	2,208,208 49

Decrease .....

The annexed are the comparative earnings of the Erie road, for May:

May, 1858.....\$469,573  
May, 1859.....\$49,958

Decrease.....\$119,629

The earnings of the Catawissa Railroad Company, for May, 1859, were.....\$26,516 21  
Do. May, 1858.....22,707 70

Increase.....\$3,808 51

Net receipts for nine months ending  
May 31st.....\$214,147 74  
Same time last year.....171,083 56

Increase (25 per cent.).....\$43,064 18

## American Railroad Journal.

Saturday, June 25, 1859.

### What is to be Done to Make our Railroads Profitable?

The Erie Canal is the direct competitor of the New York Central Railroad in the transportation of freight. As the Central is the competitor of the other three great lines, the Canal must, consequently, stand in similar relations to them. This fact was recognized by the recent compact between the four companies. They are compelled to carry low priced freights at reduced rates to take the business from this great water line.

We do not refer to this by way of discouragement, but for the purpose of pointing out to the railroads their true condition, and consequent duties. There is no doubt that charges for the transportation of property must rule low for some time to come, and permanently lower than they have been for five years past. During this period, the capacity of the Canal has been vastly increased, followed by a corresponding reduction in the cost of transportation.

The railroads must meet this improved condition of the Canal, by a reduction of current expenses. The Central certainly save \$500,000 annually, in fuel, over the cost of this article for 1856 and 1857. Coal can be had, per ton, as cheaply as wood, per cord. A ton of coal is equivalent to two cords. The annual interest on the *bonus* bonds now amount to only about \$500,000 annually. An amount nearly equal to this immense sum should and can be saved in *one* item of current expenditure. The door is open to the Erie for a very large saving by the use of coal. Its line skirts the coalfields of Pennsylvania for nearly its entire length. There is no good reason why coal is not used upon this road to the same extent that it is upon the Baltimore and Ohio. All that is wanting to this end is the requisite skill and resolute determination that coal *shall* be used. We are aware that engine drivers and firemen are strongly opposed to the introduction of this kind of fuel, and unless they are sharply looked after, they will take good care to have all experiments turn out failures.

Coal is obtainable at low cost by every railroad in the United States to which wood costs high. That it must come into general use there can be no doubt. By its use, the cost of fuel can be reduced to six and eight, and sometimes to three or four per cent. per mile run. In England, where coke is commonly used, the cost of fuel per mile is only about six cents. It costs many of our best roads

in this country, all the way, from twenty to thirty cents per mile for wood; or one-quarter of their entire current expenditure.

There is undoubtedly in all our roads a large margin for profit in the reduction of current expenditures. This is a subject that deserves the more attention from the fact that low rates must henceforward rule for portions of the year, at least, on many of our most important lines. No road can be successful in the long run that is not managed with economy. While with it, there is hardly a road among us, having tolerably fair receipts, that may not be made productive on a reasonable cost.

### Why the Net Income of our roads is not in ratio to the Gross Receipts.

It would seem reasonable to suppose that the expenses of operating a railroad ought not to increase in direct ratio to the increase of its gross receipts—that where the earnings of a railroad go from \$500,000 to \$1,000,000, the current expenses ought not to go, for instance, from \$250,000 to \$500,000, as the enlarged receipts may be attended apparently, with only a slightly increased amount of service. So, too, it would seem reasonable that the ratio of profits of various roads should be in direct ratio to the amount of their gross receipts; that if a road earning \$4,000 per mile can save 40 per cent. of this amount, a road earning \$8,000 per mile, should certainly be able to show a net profit of 50 per cent.

While such are inferences that cannot be gainsaid, the results usually obtained, are very wide of them. In fact they seem to contradict them. Take for instance two New England roads—the Boston and Lowell, and the Portland, Saco and Portsmouth. The former earns say \$15,000 per mile; the latter only about \$4,250. The total earnings of the Boston and Lowell Railroad since it went into operation have been \$7,778,888; operating expenses \$4,633,043, or 60 per cent. of the earnings. The total earnings of the Portland, Saco and Portsmouth Road (not including the year just closed), have been \$2,891,000; operating expenses \$1,270,000, or 43 per cent. of the receipts. There is no apparent reason why there should be such a wide difference. The Boston Lowell Road has a better line, and has uniformly charged higher rates of transportation. We can refer the difference to no other cause, than to the difference in the capability with which the two roads have been managed.

The instances cited, are not extreme or uncommon ones. They are so common that no ratio whatever is to be looked for between the gross and net earnings of a railroad. Why there is none, is due to the fact that able, or economical management is rather a matter of chance, or luck, than anything to be calculated upon with a reasonable degree of certainty. Under our present system very little stimulus, or motive, to good conduct is held out to the employees on a road. These are not regarded as responsible for *want* of success. They hold their places by equally safe tenure, whether the road be profitable or not. Their compensation bears no relation to the *value* of their services. Whether valuable or not becomes a matter of indifference to them. The result of a system so faulty, is seen in the great number of our roads having large receipts, but which return nothing to their owners.

The remedy for such a state of things we have already described. Our roads must be so managed that any person employed on them shall be compensated in proportion to the *value* of his services. On such a system extraordinary qualities would soon place to net earnings every penny that could be made out of them.

### Rock Island Railroad.

It is reported, we do not know with what truth, that the bridge over the Mississippi at Rock Island, partly owned by this company, has received an injury so serious as to prevent its present use. This fact is made the occasion of a feeble comment on the policy of the company by one of our city papers, and of a kind of inferential defense by another.

This matter of the bridge accident we regard as of small moment. Direct injuries or losses are always trifling, compared with those resulting from design or incompetency. *Ten thousand* dollars may be sufficient to repair the bridge. A *hundred* times that sum would not repair the loss resulting from the Bureau Valley lease, which the directors of the Rock Island saddled upon their company, a portion of them being contractors for building the leased road. Have directors of one road the right to contract for the construction of another, taking a portion of their pay in stock and bonds, and then cause a lease of the same to be taken by the company of which they are directors, at three or four times its worth, as a means of making their securities valuable, and three or four hundred per cent. on their investment. Supposing the thing to be legal, can a greater offence against property, or a greater piece of rascality be committed? Directors of railroads should be the custodians of the property they have in charge; not *plunderers* of it. There would be less cause of complaint, did the directors of the Rock Island road ever tell us anything about the cost, earnings, etc., etc., of their leased line. But they are too cunning to furnish the public with the figures which would convict them of the commission of a gross outrage, well knowing that resentment and clamor dies out unless fed upon something that is tangible.

So, too, with the Rock Island Bridge. This structure has cost an immense sum. Who can tell how much, the revenues it yields, or who lose or make by it? We suppose it has cost a half a million of dollars. Here is a sum large enough to be deserving of a statement of it to appear somewhere. If half of it belongs to the Rock Island Company, should not some account of it appear in the reports of that company? It may be, that while half nominally belongs to another company, the Mississippi and Missouri, the money has been mainly furnished by the Rock Island, as the most able of the two companies. The same parties who control the latter, are the contractors, or are owners of securities of, the Mississippi and Missouri Railroad. It would be natural that they should desire to crowd off such liabilities, as they may be able, upon the Rock Island Company. Their success in the Bureau Valley lease is a precedent too valuable not to be attempted a second time. At any rate, after this achievement, they are proper parties to be looked after sharply, especially when they take especial pains to cover their trail, and as directors, keep from the public information most important to be communicated. Will the next report of the company, soon to be made, supply it?



**Interest and Dividends.**

Coupons for interest maturing July 1, 1859, on the Chicago, Burlington and Quincy Railroad Company, the Chicago and Aurora Railroad Company, will be paid at maturity at the Bank of Commerce in New York. The interest due July 1st on the freeland bonds of the Florida, Atlantic and Gulf Central Railroad will be paid on and after that day by Joseph Grice, 96 Wall street.

The coupons due on the bonds of the New York and New Haven Railroad will be paid at the depot, corner of Twenty-seventh street, or at the Bank of the Republic.

The coupons of the Sacramento Valley Railroad Company, due July 1, 1859, on \$400,000 first mortgage bonds, will be paid on and after that date, at the office of Schuchardt & Gebhard.

The coupons on the bonds of the Alabama and Florida Railroad Company of Florida, due 1st July next, will be paid on that day at the Bank of the State of New York.

The semi-annual interest due July 1st, on the Missouri Railroad bonds, will be paid on and after that date at the Bank of Commerce.

The interest accruing on the debt of the State of Illinois, July 6th, will be paid by Mr. James Miller, Treasurer of Illinois, at the office of Howe, Hamlen & Co., No. 95 Wall street, on and after the 6th prox. All interest not collected between the 6th day of August next will be paid at the office in Springfield.

The Worcester and Nashua Railroad has declared a semi-annual dividend of \$4 per share, payable July 11th.

The Panama Railroad Company, a semi-annual dividend of 6 per cent., payable July 1.

The Illinois Central Railroad are now paying their scrip, due July 1st—less the interest to that date.

The Boston and Worcester Railroad has declared a semi-annual dividend of 3 per cent., payable July 1st.

The Broadway Bank has declared a semi-annual dividend of 5 per cent., payable on the 1st prox. The Chemical Bank, a quarterly dividend of 6 per cent. The Bank of New York, a semi-annual dividend of 3 per cent., payable July 1st. The Seventh Ward Bank, 5 per cent. The Mechanics' Bank, a semi-annual dividend of 4 per cent., payable July 1st. The Bank of America, a semi-annual dividend of 3½ per cent., payable July 1st. The Tradesmen's Bank, a semi-annual dividend of 4 per cent., payable July 1st. The Atlantic Bank of Brooklyn, a semi-annual dividend of 5 per cent., payable July 1st.

The usual semi-annual interest dividend of 3½ per cent. has been declared by the Great Western Marine Insurance Company. The Goodhue Insurance Company has declared a dividend of 6 per cent. The Fulton Fire Insurance Company, an extra dividend of two and a-half dollars per share. The Park Fire Insurance Company, a semi-annual dividend of 10 per cent., payable July 1st. The Brooklyn Fire Insurance, a semi-annual dividend of 10 per cent., payable 1st July. The Mercantile Mutual Insurance Company has declared a semi-annual interest dividend of 3½ per cent. on the capital stock. The Metropolitan Fire Insurance Company, an extra dividend of 3 per cent., payable July 1st. The Mechanics' Fire Insurance Company, Brooklyn, a semi-annual dividend of 10 per cent., payable July 1st.

**Railroads of New Hampshire.**  
Statement showing the cost, earnings, etc., etc. of the Railroads of New Hampshire, for 1858-9.

Name of Road.	Cost.	Gross receipts.	Current expenses.	Net earnings.	Rec'd from pass'gers.	Rec'd from freight.	Do. Miscellaneous.
Ashuelot	\$385,018	\$30,000	\$141,332	\$86,338	\$64,238	\$151,314	\$12,165
Boston, Concord and Montreal	3,015,880	227,720	89,135	19,362	29,219	29,623	8,646
Concord and Portsmouth	250,000	68,488	18,125	19,362	97,237	185,806	17,821
Cheshire	3,082,757	297,832	188,815	108,527	17,063	23,199	4,278
Cocheco	866,659	44,709	27,646	17,063	17,231	27,975	29,314
Concord and Manchester and St. Lawrence	2,663,463	459,659	244,572	213,948	151,083	10,440	1,362
Concord and Dover	200,000	16,608	15,074	1,528	4,801	17,412	1,000
Concord and Dover	403,564	27,826	13,990	13,836	9,613	17,212	6,302
Great Falls and Conway	403,564	59,774	38,618	21,156	19,523	33,898	12,809
Merrimack and Connecticut Rivers	1,282,380	69,774	176,110	176,990	88,875	26,416	3,967
Northern	3,580,246	63,874	43,976	19,897	27,146	32,761	3,967
Sullivan	1,250,000	18,620	10,449	8,171	5,185	9,280	1,162
Wilton	227,497	15,628	5,159	10,469	5,185	9,280	1,162
White Mountains	200,000	15,628	5,159	10,469	5,185	9,280	1,162
Totals	\$17,017,464	1,768,333	\$839,657	\$828,676	\$499,147	\$1,000,924	\$268,324

**Portland, Saco and Portsmouth Railroad.**

The earnings of this road for the past year were:

From passengers	\$155,953
" freight	44,317
" mails, etc.	11,727
Total	\$211,997

The current expenses for the year were \$100,853, to which was added \$10,000 for renewals, making the total net income \$101,144. Two dividends of 3 per cent. each, amounting to \$90,000, were paid. The surplus for the year was \$11,144, which, added to this fund, made the total amount in hand May 31st, \$40,844.

The capital account is represented entirely by stock, of which \$1,500,000 has been issued.

The road is represented to be in excellent condition, which we may well credit from the fact that it has never failed to make and earn yearly dividends of 6 per cent. It could not have regu-

larly done this unless it had been well managed and maintained. The earnings of the road have never exceeded \$5,000 per mile. It has a vigorous steamboat competition, yet by good management it has been enabled to make a fair return upon its cost, which many of our roads have failed to do upon receipts relatively twice as great.

**New York and Erie Railroad.**

We understand that steps have already been taken by some of the mortgage bondholders to foreclose their mortgages, for the purpose of obtaining possession of the road. All such measures are to be deprecated and avoided, if possible. In the emergency should not a meeting of the stock and bondholders be called? There is not only no well-defined opinion as to the real value of the road, but there is also a want of adequate basis, or knowledge upon which to form such an opinion. For two years past the ratio of expenses to earnings have been nearly 75 per cent. Is this to be the rule, or an exception? If the rule, then the sooner the fourth mortgage bondholders go into peaceable possession of the road the better. On the other hand, if the road can be operated at a lower rate than 75 per cent. of its earnings, it is important to have the approximate figures, as a means of knowing how large a burden the road can carry. A public meeting of all interested, would have a tendency to draw out the desired information.

**Mississippi and Tennessee Railroad.**

We learn from the Memphis *Avalanche* that track-laying on the southern section of this road has been commenced, that it will continue until fifteen or twenty miles are laid. The road will certainly be opened for business as far as the Yokena river, a distance of seventy-two miles from Memphis, on or about the 1st day of October, and in all probability, to the Oakland Depot, a distance of eight miles beyond the river, by the 1st of November. The entire road is under contract, to be completed by the 1st day of January, 1861.

The receipts of this road for the eight months ending May 31, 1859, amounted to \$136,053.85.

**Cleveland and Toledo Railroad.**

The earnings of this road for the year ending April 30, were—

From Passengers	\$485,837 45
" Freight, mails, &c.	312,818 20
Total	\$798,155 65
Running expenses for the same period	383,699 78

Net earnings \$414,455 92

From this is to be deducted:

Interest on funded debt	\$269,500 00
Rent of C. C. and Cincinnati road	66,000 00
Sinking fund	38,000 00
Interest on floating debt, &c.	35,000 00

Total \$408,500 00  
Net earnings 5,955 00

The earnings are \$132,096 81 less than for the preceding year. The report says:

The financial position of the company has not materially changed since the last annual statement. The interest on the bonded debt has been paid, and the obligations of the company have been met as they became due. The total amount of the outstanding notes of the company June 1, 1859, is \$358,605 64. The outstanding bonds of the company amount to \$3,842,720. A gradual exchange of the outstanding bonds of the company for the sinking fund mortgage bonds has

been going on during the year, so that at the present time the outstanding bonded debt includes \$640,000 of said bonds.

#### Alexandria, Loudoun and Hampshire Road.

We learn from the *Washington States* that the rails have been laid upon this road as far as Arlington Mills. The road passes some three miles to the south of the District of Columbia, and it is proposed to connect with the District cities by a branch road crossing the Potomac Aqueduct at Georgetown. Surveys have been made upon the whole line, which passes through some of the most populous and wealthy counties of Virginia, and terminates in the centre of the vast mineral region covered by the counties of Hampshire and Hardy. The grading is already completed as far as Leesburg, in Loudoun County, to which point the road will be opened in the course of the summer. When completed, it will be one of the most valuable feeders ever opened to the business of the cities of Washington, Georgetown and Alexandria.

#### Michigan Central Railroad.

The result of the operations of this road for the current year are stated to be about as follows:

The annexed are said to be figures of the forthcoming Michigan Central Railroad report:

Gross receipts for the year end'g June 1, \$1,889,000  
Expenses..... 1,072,737

Interest for year, &c ..... \$806,268  
735,000

Net profits ..... \$71,268  
Credit of income account, 1858..... 87,419

Aggregate credit..... \$168,687

#### Sunbury and Erie Railroad.

We learn from the *Philadelphia News* that the last rail necessary to complete the track of the Sunbury and Erie Railroad to Lockhaven has been laid. The first passenger car between Williamsport and the Bald Eagle Bridge, which is a short distance below Lockhaven, was run over the road to that point on the 15th, carrying, among other gentlemen, the Governor of the State, and the President and Chief Engineer of the Company. The line is now complete from Sunbury to Lockhaven, and arrangements are nearly completed for the regular running of the trains between these points. Above Lockhaven, and to the head waters of the Sinnemahoning, the grading of the road is nearly all completed, and a very short time will be sufficient to have the rail down to this point. The present extension, in connection with some lateral roads already constructed, reaches the rich coal fields of the West branch, and a very large trade from this source is now ready to go on the road. The entire work of construction on the middle and western divisions will be vigorously pressed during the present season, and it is confidently expected that the rails will be laid to the harbor of Erie by July, 1860.

#### The Clinton Bridge.

Respecting the Clinton bridge, which is to connect the Galena and Chicago with Iowa Railroad the *Chicago Democrat* of the 17th, says:

The bridge at this place is progressing rapidly under the energetic superintendence of the contractors, Messrs. Cross & Wicks, assisted by D. Harper, Esq., of this city. The masonry and pile work is about three-quarters done, and the superstructure half done. The bridge will cost, in all, about \$100,000, which is comparatively a small sum. It is being constructed by a company of Boston capitalists.

#### Louisville and Frankfort Railroad.

The completion of this road to Franklin was celebrated on Saturday morning last by a barbecue.

#### Dayton and Michigan Railroad Company.

The annual meeting of the stockholders of this company was recently held at their office in Dayton. The attendance was unusually large for such an assemblage. The reports of the present Superintendent and Secretary were listened to with great interest, and seemed to give very general satisfaction.—The affairs of the company would seem to be in a prosperous condition. The iron for the remaining seventy miles (Lima to Toledo) is purchased and now being laid in the track.—Great hope is expressed that the road will be completed to Toledo by the first of September next. From the Superintendent's report, we learn that although that portion of the road between Lima and Sidney was not in full operation until the 22d day of September, the gross earnings were—

From passengers ..... \$69,340 84  
" freight ..... 49,825 32  
" mails and express ..... 5,393 32

Total earnings ..... \$124,559 48  
The operating expenses amount to... 57,779 58

Leaving for net earnings.... \$66,779 90

The total mileage for engines 144,606 miles, at a cost for repairing, etc., of \$5,802 26, or 4½ cents per mile run. The number of passengers transported was 83,496, at an average fare of eighty-three cents each.

From the above, it will be seen that the operating expenses were about 46½ per cent. of the gross earnings. The election for directors was held at the same time and place, and the old members were unanimously re-elected.—*Cin. Commercial.*

#### Chicago, Detroit and Canada G. T. Junction Railway.

The *Detroit Advertiser* states that the work on this line of road from Detroit to Port Huron is progressing favorably. The first locomotive with iron for the Mount Clemens section, passed over the ten miles already constructed, on Monday.

The station to which this iron was forwarded is called Fraser's station. We understand that arrangements are so far complete that the rails can now be placed at the rate of one mile *per diem*. The contractors are pursuing their work with great diligence and efficiency.

#### The Delaware and Maryland Railroad.

The Somerset (Md.) *Union* predicts that this road will be in actual operation to Salisbury, in that county, by the close of the present year. It is already under contract to the Maryland State line, at a cost of only thirty-six cents for the right of way to Seaford, Del., a distance of 13 miles. The bridge across the Nanticoke, at Seaford, is nearly completed, and in two months trains will be enabled to run as far as Laurel. It is expected that in a few days the road will be under contract to Salisbury, on favorable terms.

#### Delaware and Lehigh Water Gap Railroad.

Ground has been broken on this road at a point near Bethlehem, Penn. The road is to connect the North Pennsylvania, and the Delaware, Lackawanna and Western. It is expected that it will be finished in May next.

#### The Ohio County Bonds.

The *Wheeling Intelligencer* says: The County Court of Ohio county, Va., has decided not to make a levy for the payment of the warrants and coupons due, and becoming due, during the coming year, for the interest on the bonds of Ohio county issued to the Hempfield Railroad Company. The Court made an order appointing a commission to ascertain from the holders of the bonds for what sum they will surrender the same for cash, on or before the first day of May next.

#### Provincial Canals.

*Reduction of Tolls.*—By an order in Council, to take effect on the 15th inst., considerable reductions have been made on the tolls upon the Welland and St. Lawrence Canals. On the Welland Canal articles in the third class have been reduced from 20 cents to 15 cents per ton; those in the fourth class from 25 cents to 20 cents; those of the fifth class from 30 cents to 25 cents; and those of the sixth class from \$1 to 50 cents; while boards, planks, scantling, and other sawed lumber, which lately paid 30 cents per 1,000 superficial feet, are now charged 20 cents. Barrel staves and headings 30 cents, instead of 40 per M; pipe staves \$1.50, instead of \$2, and West Indian staves 60 cents, in lieu of 75 cents.

The following articles, which hitherto paid \$1, as coming under the 6th class, have been transferred to the 5th class, paying 25 cents per ton only, viz: rosin, tar, pitch, whiting, chalk, ships' stores, crockery, iron safes, soda ash, white lead, paint, turpentine, dye woods and dye stuffs, leather, manufactured tobacco, mahogany, and agricultural implements. Ice has been placed in 3d or lowest class, and horses, and all kinds of oil in barrels, have been put in the 4th class.

#### Liabilities of Towns for Subscriptions to Railroads.

The suits involving the liability of several towns of this county upon bonds issued to aid in the construction of the L. O., A. & N. Y. R. R., which had been argued before the General Term of the Supreme Court, have just been decided by that Court in full bench, Judge Strong presiding, and Judges Welles, Smith, and Johnson, associates.

The Court sustains the validity of the bonds, and holds the towns liable to pay them to bona fide holders. The opinion is written by Judge Strong, and it is understood to cover the whole ground of overruling all points of defence, and to be concurred in by the whole bench. This decision sustains the good faith of the towns. They will doubtless cheerfully comply with the judgment of the Court.—*Auburn Advertiser.*

#### Auburn and Allentown Railroad.

Since the announcement of the increase of tolls on the railroad and canal, the business men of Schuylkill county seem determined to secure an outlet to New York direct, if possible. A number of persons met a committee connected with the Auburn and Allentown Railroad in New York last week, and they proposed to push the road through as rapidly as possible, provided the sum of \$150,000 is subscribed in and by those interested in Schuylkill county, for the purchase of iron—said amount to be taken in stock or bonds, if any bonds should be issued. The company prefer building the whole road with stock only, if it can be secured, and issue no bonds. About \$350,000 have already been expended—\$800,000 are ready—and the balance over and above the \$150,000 for the purchase of the iron, will be forthcoming as soon as the \$150,000 is subscribed. No money will be required until the roadway is graded.—*Pottsville Miner's Journal.*

#### Macon and Brunswick Railroad Commenced.

In the early part of last week, Mr. McNeill, with his corps of engineers and assistants, commenced the location of the Macon and Brunswick Railroad. The location has been completed to the point at which the Ocmulgee is to be crossed, and on yesterday the camp was moved to the east bank, and it is expected that the work will be vigorously prosecuted until forty miles is finished, when the contracts for the grading, superstructure, &c., will be let out.—*Macon Telegraph, 12th inst.*

#### Androscooggin Railroad.

This road is completed to Farmington, to which place a passenger train run on Monday last. By the completion of this road the fertile valley of Sandy river is brought in close connection with our city, which, we have no doubt, will result to the advantage of both places.—*Portland Advertiser.*



**Maysville City Bonds.**

A few days since the Court of Appeals affirmed the decision rendered by Judge Phister, at the April Term of the Mason Circuit Court, for 1858, in the case of Graham & Knox agt. Alex. Maddox and others, composing the Board of Councilmen for the city of Maysville.

This was an application upon the part of the plaintiffs, holding certain bonds of the city of Maysville, issued in part payment of its subscription to the capital stock of the Maysville and Lexington Railroad Company, for a mandamus to compel the city council to levy and collect a tax to pay the interest due and in arrears on said bonds; and the case having been elaborately argued on the 29th day of April, 1858, Judge Phister rendered a decision in favor of the plaintiffs. The defendants appealed, and the decision of the Circuit Court is sustained. The Court of Appeals has awarded a mandamus, as asked for by the plaintiffs, and its decision is emphatic on all the points involved.

**Louisville and Nashville Railroad.**

Travelers are now making the trip from this city to Nashville in twenty-seven hours. The trains leave Nashville at three and a half o'clock, P. M., and arrive at Louisville at six o'clock, P. M., next day. By the Louisville route passengers reach New York in less than three days. In November the road will be completed, when those who journey can breakfast in one city and sup in the other. —*Louisville Courier*, 13th.

**Illinois River Railroad.**

The iron for this road is now being received at New York. Thirteen vessels loaded with it have arrived. The iron brought by seven of them had been shipped for Chicago, a portion of which had reached the latter place, and would be forwarded to Pekin at the earliest practicable moment. Track-laying will soon commence. —*Alton (Ill.) Courier*, June 18.

**Competition on the Lakes.**

The Cincinnati *Gazette*, of the 17th, says new difficulties have arisen at the West among the railroad people:

"The steamboat lines on Lake Erie and the Hudson river, not having been included in the compromise, are competing for the passenger travel by selling tickets from Cleveland to New York at reduced rates. To meet this, the Lake Shore Railroad, we understand, reduced its fare \$1. This latter reduction, if persisted in, will, of course, be followed by a corresponding change in the tariff of the Pennsylvania Road."

**Hudson River Railroad.**

On the 13th instant, the following gentlemen were elected as Directors of the Hudson River Road: Samuel Sloan, James Boorman, John David Wolfe, Edward Jones, William Kelly, D. Thomas Vail, Erastus Corning, William H. Hays, Robert P. Getty, Henry A. Smythe, E. M. Gilbert, J. B. Johnston, E. H. Miller. Mr. Samuel Sloan was unanimously re-elected President, and Mr. D. Thomas Vail, Vice-President.

**Amboy and Grand Traverse Road.**

The citizens of Saginaw city have agreed to loan \$80,000 for twenty years to the Amboy, Lansing and Grand Traverse Bay Railroad, and also in behalf of the city to subscribe a like amount. The Directors of the road agreed on their part, in event of prompt payment of \$100,000, to grade the road between that city and Owosso within six months of the time of the ratification of the contract, and finish and equip the same by one year from July 4 next ensuing.

**Cincinnati and Chicago via Logansport.**

The U. S. Circuit Court has appointed Wm. Ball, of Terre Haute, Receiver for the Cincinnati and Chicago Road—Richmond to Logansport—and that gentleman has entered upon the discharge of his duties. The management of the road is not to be interfered with.

**Peoria and Bureau Valley Railroad.**

The annual meeting of the Peoria and Bureau Valley Railroad Company was held in Chicago on the 9th inst., when the old Board of Directors was re-elected, as follows: Henry Farnham, N. B. Judd, of Chicago; Charles W. Durant, F. H. Tows, of New York city; John L. Griswold, John Hamblin, of Peoria.

At a subsequent meeting of the Directors, N. B. Judd was re-elected President, Washington Cockle, of Peoria, Secretary, and C. W. Durant, Treasurer.

**European and North American Railway.**

On Wednesday, June 8th, the European and North American Railway was opened from St. John to Hampton with appropriate ceremonies and rejoicings.

**Southern Railroad.**

Wm. M. Wadley, Esq., late of the New Orleans, Jackson and Great Northern Railroad, has been appointed Superintendent of the Southern Railroad.

**Baltimore City Passenger Cars.**

The track on Broadway for the City Passenger Railway is completed to within a few feet of Baltimore street, and a large force of laborers are engaged in filling in between the tracks with earth and repaving the street. Messrs. POOLE & HUNT have contracted for building the cars, which are to be handsome and tasteful. The contractors intend commencing on Baltimore street to-morrow with an increased force of excavators. They design commencing at the other end in a short period, so as to complete the work by the end of August. —*Balt. American*, June 23d.

**Nashville and North-Western Railroad.**

We learn from advertisements that proposals are invited for the grading, bridging, and masonry, of twenty-three miles of the Nashville and North-western Railroad out from Nashville, the contracts to be awarded on the 12th of July.

**DR. A. MERRIMAN, DENTIST.**

1 Waverley Place, opposite New York Hotel, NEW YORK.

**JAMES ANDERSON & CO.,**  
IMPORTERS OF AND DEALERS IN  
**HARDWARE AND CUTLERY,**  
Nos. 23 & 25 Dey Street, NEW YORK.  
SOLE AGENTS FOR



**TROY BELL FOUNDRY**  
AND  
**PHENIX BLACK LEAD CRUCIBLES.**

Dealers and consumers are invited to inspect our stock consisting of every article known in the trade, viz. Builders', Machinists' and Founders' Materials. Stub's and Norton's Files, Tools, etc., etc. METALS OF EVERY KIND. Favorable terms to first class buyers.

**ROLLING MILL FOR SALE.**

A MERCHANT IRON AND WIRE ROD ROLLING MILL, situated in the City of Wheeling, Va., with Coal banks in rear of the mill containing an abundance of good bituminous coal.

The cost of the fuel delivered to the furnaces is but two and a-half cents per bushel.

Attached to the mill is a WIRE FACTORY and its appendages. Also a KIRK STEAM HAMMER for Forging Car Axles, etc. There is extra shafting and surplus of power for other work if required.

The extraordinary cheapness of the fuel, and the facilities for obtaining metals, and for shipping, both by water and rail, to all parts, particularly west and south, makes the locality a desirable one for the manufacture of IRON in any or all its branches.

For particulars address either of the subscribers.

P. A. BURDEN, Lansingburg, N. Y.  
C. DEWEY, Cadiz, Harrison Co., Ohio.  
E. H. NORTON,  
P. C. HILDRETH, Wheeling, Va. 8:30

**PARK'S IMPROVED TRACING LINEN, DRAWING MATERIALS, FOREIGN AND DOMESTIC STATIONERY, PRINTING & LITHOGRAPHING.**

DEVLIN & HAGAN,  
No. 7 Nassau st., N. Y.

**To Locomotive Builders.**

WANTED a situation by a Draughtsman well acquainted with the practical construction of Steam Engines, particularly Locomotive Work.  
Address Box 492 Paterson, N. J. 25

**FREIGHT CARS for SALE.**

11 CARS—Have been run about one year,—viz:—  
2 long 8-wheel Box Cars,  
9 " " Platform Cars.

These Cars are made in the best manner, with large axles, brakes, Lightner boxes, etc., and will be sold low for cash.  
WILLIAMS & PAGE,  
44 Water st., Boston.

**FOR SALE.**

2,250 TONS English Rails, (adorn), 54 lbs. to the ton, yard, Erie pattern, Bars 24 feet long. Terms, Cash.  
GEO. T. M. DAVIS,  
New York, June 1, 1859. 423 47 Exchange Place.

**FOR SALE.**

2 FIRST CLASS LOCOMOTIVES, warranted to be superior in every respect. Weight 24 tons. Gauge 4 feet 8½ inches. Cylinder 15x22 inches. Outside connection. Boiler 44 inches diameter. 130 Copper Flues, each 10 feet 6 inches long, 2 inches diameter. 800 sq. feet Fire Surface. Tender 1,700 gallons. 5 feet Drivers. Are entirely new, never having been used. For terms apply to  
GEO. T. M. DAVIS,  
47 Exchange Place.  
423  
New York, June 22, 1859.

**CAST STEEL,**

Of First Quality and Warranted.

BAR, TOOL, DRILL, AND DIE STEEL  
LOCOMOTIVE, CAR AND CARRIAGE CAST STEEL  
CAR SPRING STEEL,  
Far superior to the ordinary kind.  
FROG PLATES, POINTS.

Saw, File, Cutlery, Rake, Hoe, Axe and Plough-Steel. Gun Metal. Wire and Machinery Steel.  
ORDERS FILLED PROMPTLY AND AT LOW PRICES.

SALTUS & CO.,  
45 Cliff st., New York.

**RAILROAD IRON.**

WOOD, MORRELL & CO.,

HAVING leased the extensive Works of the CAMBRIA IRON COMPANY, situated at JOHNSTOWN, Cambria Co., Penna., and purchased all their real estate, are now prepared to execute, at short notice, orders for RAILS of any required pattern or weight, on the most liberal terms.  
PHILADELPHIA { NORTH PENNA. R. R. BUILDING.  
OFFICE, No. 407 Walnut st.

**THE ROUND OAK IRON WORKS, STAFFORDSHIRE, ENGLAND.**

Lord WARD, Proprietor.  
MANUFACTURE RAILS, BOILER PLATES, SHEETS, HOOPS and BARS, of every variety of pattern.

NORRIS & BROTHER,

Agents for the United States,  
12 SOUTH CHARLES STREET,  
BALTIMORE.  
And 17 NASSAU STREET, NEW YORK.

**Railroad Iron.**

THE undersigned have American and Foreign Railroad Iron for sale, deliverable in New York and other markets.  
CASWELL & PERKINS,  
Brokers, 40 Wall st.

New York, January 1, 1859.

**RAILROAD IRON.**

500 TONS American Rails, Erie pattern, 56 lbs. per yard, for sale at Chicago, also about 250 Tons English Rails same size and weight.  
M. K. JESUP & COMPANY,  
New York, June, 1859: to be had at 44 Exchange Place.

**RAILROAD IRON.**

THE undersigned, having been appointed Agents for Messrs. BOLOGOW & VAUGHAN, proprietors of the **ESTON, MIDDLESBRO', and WITTON PARK IRON WORKS, YORKSHIRE, ENG.,** are prepared to contract for the sale of **RAILROAD IRON** of a superior quality and on the most advantageous terms.

**MEAD & BELL,**  
17 William st., N. Y.

**RAILROAD IRON.**

THE undersigned, agents for the manufacturers, are prepared to make **CONTRACTS FOR RAILS** delivered free on board at ports in England, or exship at ports in the United States.

**M. K. JESUP & COMPY,**  
44 Exchange Place.  
New York, 1st June, 1859.

**RAILROAD IRON.**

THE undersigned, Agents for leading Manufacturers in **STAFFORDSHIRE and WALES**, are prepared to contract for delivery on board ship at **LIVERPOOL**, or **WELSH** port.

**C. CONGREVE & SON,**  
13 Cliff st., N. Y.

**RAILROAD IRON.**

**CONTRACTS FOR RAILS**, at a fixed price or on commission, delivered at an English port, or at a port in the United States, will be made by the undersigned.

**THEODORE DEHON,**  
10 Wall st., near Broadway, N. Y.  
500 tons T Rails on hand, 54 to 57 lbs. per lineal yard.

**RAILROAD IRON.**

THE subscribers, Agents for the Manufacturers, are prepared to contract for the delivery of **RAILROAD IRON** at any port in the United States or Canada, or at a shipping port in Wales.

**WAINWRIGHT & TAPPAN,**  
BOSTON, June, 1851. 29 Central Wharf.

**RAILROAD IRON.**

THE subscriber is prepared to enter into **CONTRACTS FOR RAILS** delivered at an English port or at a port in the United States.

**JAMES TINKER,**  
54 Exchange Place,  
NEW YORK.  
Erie Rails, 57 to 58 lbs. per yard, on hand in NEW YORK and NEW ORLEANS.

**RAILROAD IRON**

**AND COMMON BARS.**

THE undersigned, sole Agents to Messrs. GUEST & Co., the proprietors of the Dowlais Iron Works, near Cardiff, South Wales, are duly authorized to contract for the sale of their G. L. Railroad Iron, and Common Bars, on most advantageous terms.

**R. & J. MAKIN, 70 Broad st.**

**RAILROAD IRON.**

THE undersigned, Agents for the Manufacturers, are prepared to contract to deliver, free on board at shipping ports in England, or at ports of discharge in the United States, **RAILS OF SUPERIOR QUALITY**, and of weight or pattern as may be required.

**VOSE, LIVINGSTON & CO.,**  
9 South William st.  
NEW YORK, Aug. 1, 1859.

**THE RAILROAD IRON MILL COMPANY,**

**CLEVELAND, OHIO,**

**MANUFACTURERS EXCLUSIVELY OF**

**RAILROAD IRON.**

THIS is a new **ROLLING MILL**, having been working only eighteen months, and confined to work for roads on this line between Buffalo and Chicago in re-rolling old Rails. The capacity is Forty Tons per day. It is well situated for receiving old Rails, either by Railroad or Lake.

**Orders are now solicited**

From Roads in other sections of the country; and work will be made with New Iron in the hands, if desired.

Apply to

**ALBERT G. SMITH,**

President of the Incorporation.

February, 1860.

**RAILROAD IRON.**

The Crescent Manufacturing Company,  
**WHEELING, VA.,**

ARE now prepared to execute, at short notice, orders for Rails of any required pattern and weight, and to re-roll old rails, on the most liberal terms.

**N. WILKINSON, Sec'y**  
WHEELING, VA.

**STEEL, FILES, ETC.**

**R. GROVES & SONS,**  
**SHEFFIELD, ENGLAND,**

MANUFACTURERS of warranted Cast Steel, superior quality, for Tools, Machinery, and Engineering purposes. Single and Double Shear, Blister, German Spring and Sheet Steel of every description—also, Cast Steel Files, of high reputation, especially adapted for the use of Machinists, and **Saws and Edge Tools** of all kinds. A stock of the above goods constantly on hand.

CORPORATE MARK



**CHAS. CONGREVE & SON, Agents,**  
13 Cliff street, N. Y.

**IRON BOILER FLUES.**

**Lap-Welded Boiler Flues,**

1½ to 7 inches outside diameter, cut to definite length, 2 to 20 feet as required.

**Wrought Iron Welded Tubes,**  
from ½ to 5 inches bore, with Screw and Socket Connections. T's, L's, Stops, Valves, Flanges, &c., &c.

MANUFACTURED AND FOR SALE BY

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**PASCAL IRON WORKS.**

Established 1821.

Warehouse—209 South Third st.,  
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STEPHEN MORRIS,  
THOS. T. TASKER, JR.

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**MORRIS & JONES & CO.,**

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**IRON AND STEEL**

IN ALL THEIR VARIETIES.

**BOILER PLATE, CAR AXLES,**  
**BOILER RIVETS, RAILROAD IRON,**  
**CUT NAILS and SPIKES, PIG IRON, etc.**

Having the selling agency of a number of the Rolling Mills Furnaces and Forges in this State, orders for any description of Iron can be executed.

August 16, 1864

1723

**LACKAWANNA**

**IRON AND COAL COMPANY,**  
**SCRANTON, LUZERNE CO., PA.**

BY the completion of the Delaware, Lackawanna and Western Railroad, this Company are enabled to obtain the Magnetic Ores from the most celebrated mines in New Jersey, which used in combination with their native ores, produce a quality of iron not surpassed.

These works have been greatly enlarged the past year, and are, therefore, prepared to execute orders promptly for **RAILROAD IRON** of any pattern and weight, Car Axles, Spikes, and Merchant Iron. They have on hand patterns for T rails, of the following weights per lineal yard, viz:—25, 30, 36, 40, 45, 50, 60, 62, and 75 lbs.

Samples of Rails and Merchant Iron may be seen at the office of the Company, 46 Exchange Place, New York.

Address **J. H. SOMANTON, President,**  
**SCRANTON, PA.**

or **DAVID S. DODGE, Treasurer,**  
46 Exchange Place,  
New York.

**RAILROAD IRON.**

**WELSH** or **Staffordshire** make, delivered on board at an English port or at a port in the United States.

**NORRIS & BROTHER,**  
BALTIMORE.  
And 17 Nassau st., NEW YORK.

**RAILROAD IRON.**

**THE RENSSELAER IRON COMPANY,**  
**TROY, N. Y.,**

OFFER Rails of their own manufacture deliverable as may be desired by purchasers.

**OLD RAILS**

received in exchange for new, or for re-manufacturing.  
**JOHN A. GRISWOLD, Agent,**  
**TROY, N. Y.**

New York Agency:  
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Business Paper and Bills of Exchange negotiated.

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Office No. 21 Nassau st., NEW YORK.

**BUYS and sells MINING SHARES, MINES and MINERAL LANDS** on commission, will examine Mines and Mineral Lands in any part of the United States, and report on their value, etc., etc.

REFERENCES:—P. Chouteau, Jr., & Co., New York and St. Louis, the Hon. Wm. M. Gwin, U. S. Senator, the Hon. C. A. Peabody, N. Y., the Hon. Sam. F. Butterworth, N. Y., Frost & Forrest, Com. Mer's N. Y., John F. Butterworth, Esq., N. Y., G. O. Williams & Co., Detroit, Mich., Capt. D. Tyler, Norwich, Conn., Hittinhouse, Fant & Co., Bankers, Washington, D. C. Particular attention given to Lake Superior business.

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**AUCTION SALES OF STOCKS and BONDS** every TUESDAY, at 12½ o'clock, at the Merchants' Exchange, **RAILROAD BANK, INSURANCE**, and other SECURITIES bought and sold at the BROKERS' BOARD, at PRIVATE SALE, or at AUCTION. All dividends payable in New York collected, and prompt remittances made.

NONE BUT HOWA FIDE QUOTATIONS FURNISHED THE PRESS. THE MARKET VALUE OF SECURITIES WILL NOT BE SUPPRESSED OR ALTERED, AND DECEPTIVE OR IRRESPONSIBLE CATALOGUES WILL NEVER BE ISSUED.

A statement showing the capital, dividend months, and last semi-annual dividend of the Banks and Insurance Companies of the city of New York, will be forwarded by mail upon application.

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Messrs. Thompson Bros., " Hon. Judge L. d. La Crosse, " Wia  
Bankers, " Hon. M. Levy, Banker, " "  
Messrs. Sewell, Ferria & Co., " Hon. Franklin Steele, Minne-  
Geo. P. Rogers, Esq., " sota.  
A. Gridley, President McLean Co. A. & W. A. Saunders, Bankers,  
Co. Illinois, Mt. Pleasant, Iowa.

**PETERS, CAMPBELL & CO.,**  
BANKERS and DEALERS IN  
DOMESTIC EXCHANGE and BANK NOTES,  
No. 50 WALL STREET,  
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SPECIAL ATTENTION GIVEN TO  
**COLLECTIONS**  
IN ALL PARTS OF THE UNITED STATES.

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D. T. O. PETERS, } DAVID E. SPENCE,  
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REFER TO  
**JAS. T. SOUVER, Esq., Pres't B'k Republic,** New York City  
American Exchange Bank.  
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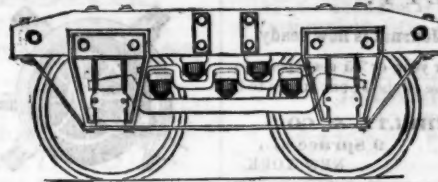
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**CIRCULAR NOTES and LETTERS OF CREDIT,**  
FOR TRAVELERS,  
AVAILABLE IN ALL THE PRINCIPAL CITIES OF THE WORLD.  
ALSO, **MERCANTILE CREDITS,**  
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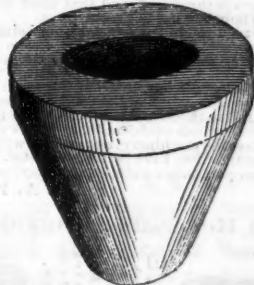
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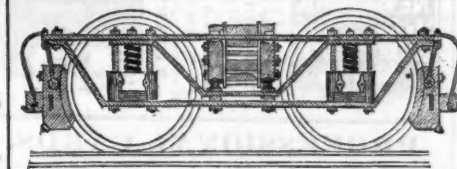
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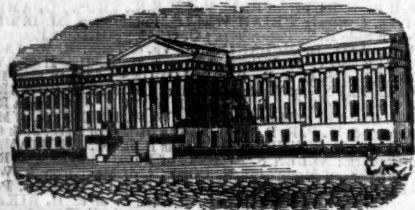
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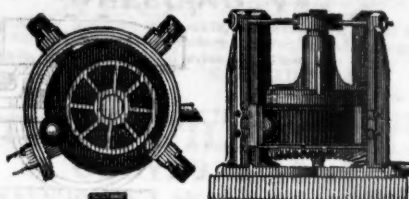
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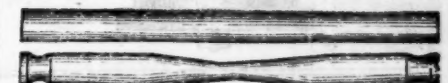
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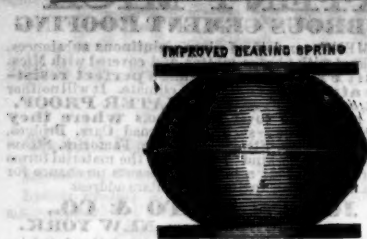
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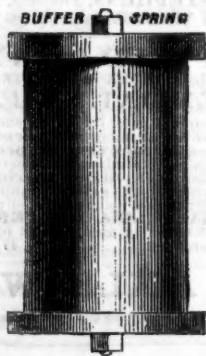
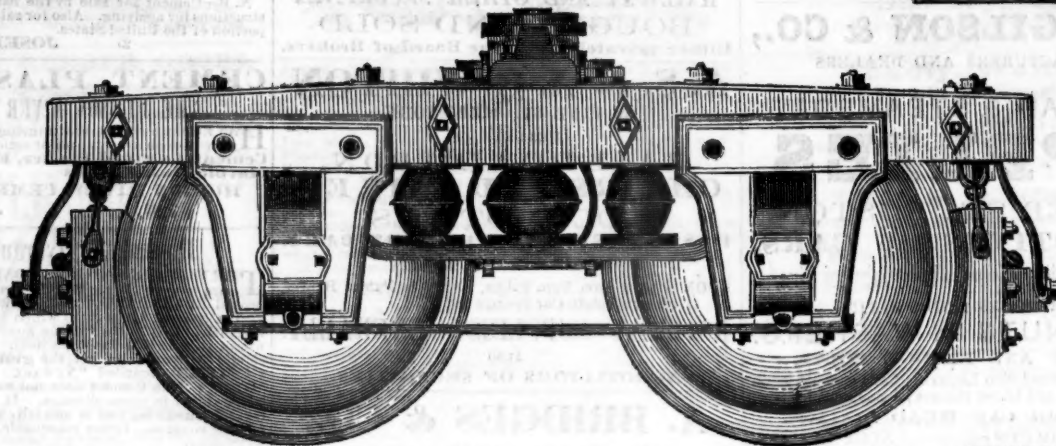
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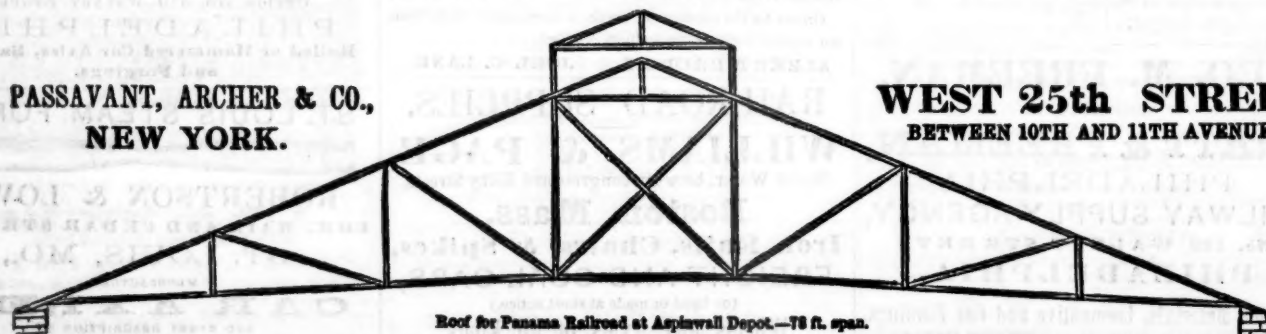
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